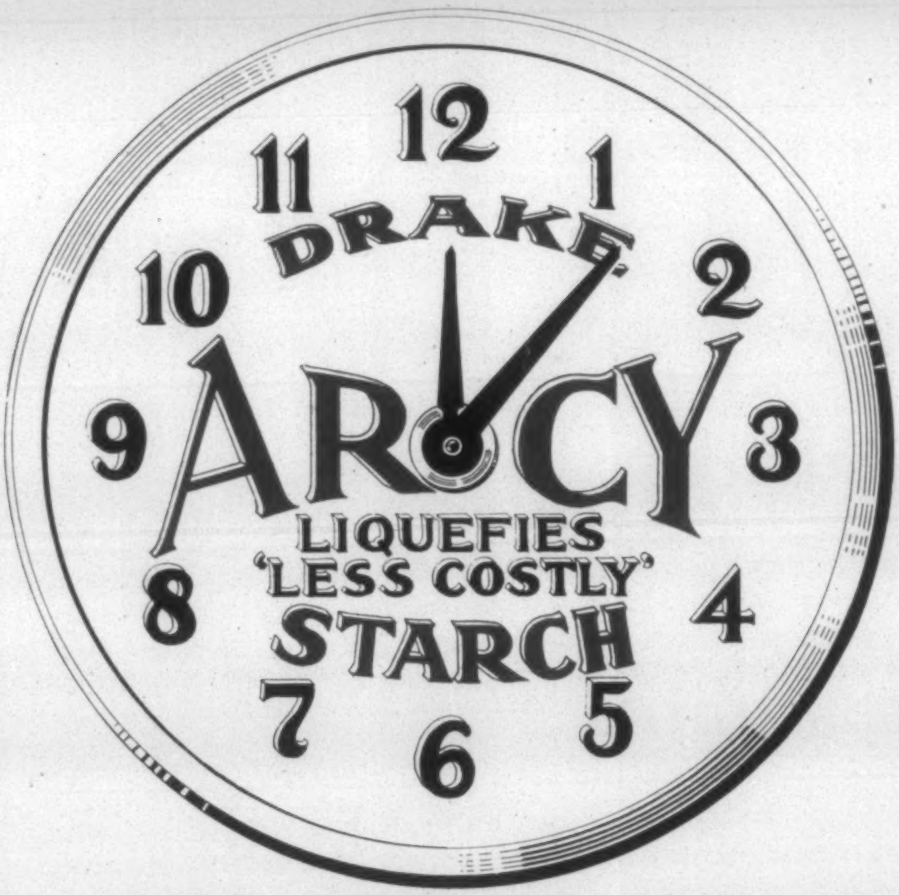
TEXTILE BULLETIN

Vol. 57 February 15, 1940 No. 12



NOW IS THE TIME!

With every mill striving, by modernization of equipment and methods, to lower production costs and increase efficiency, there could be NO BETTER TIME to take advantage of the opportunities offered to reduce warp sizing costs and with superior results.

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NORFOLK VIRGINIA

Warp Dressing Service Improves Weaving

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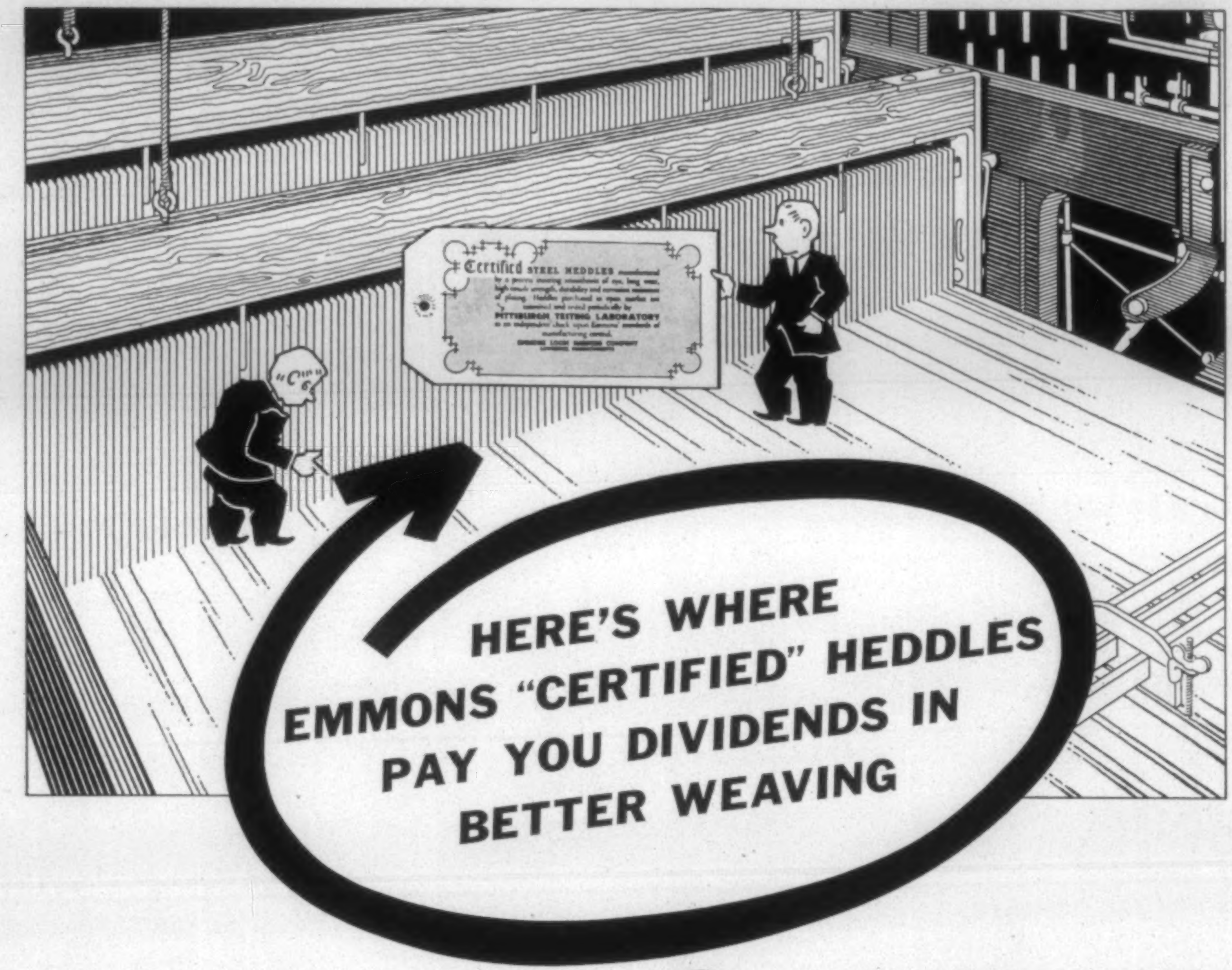

Certified STEEL HEDDLES
PITTSBURGH TESTING LABORATORY
HERE'S WHERE EMMONS "CERTIFIED" HEDDLES PAY YOU DIVIDENDS IN BETTER WEAVING

Heddles made under strictly controlled, uniform standards give you freedom from chafing, uniform warp tension, fewer warp breaks, in general, *better weaving*.

That's why it pays you to make sure the heddles you buy are marked with Emmons' "Certified" Tag, and "Inspected and Approved" Seal.

The seal tells you that the heddles have been inspected and approved by Emmons' own inspectors. The tag tells you that a check-up on Emmons heddles is made periodically by the famous Pittsburgh Testing Laboratory.

Eyes are smooth, tensile strength is high, flexibility is right, plating is durable and resistant to corrosion. With Emmons' "Certified" Steel Heddles, you can take those things for granted. The seal and the tag will never let you down.

THE "INSPECTED AND APPROVED" SEAL IS ON ALL EMMONS LOOM HARNESS EQUIPMENT

Attached to Emmons "Multiplied Yarn Space" Reeds, it means that dents are made from fine, resilient wire—smoothly tapered to pass good knots, etc. . . . machined accurately to 1/1000". . . spaced accurately within 1/100". . . polished six times.

RESULT: freer warp movement, less fly, no reed marks in the cloth.

FROM EMMONS — QUICK DELIVERY ON
Chafeless Cord Cotton Harness. Also plain or non-slip Mail Eye. Multiplied Yarn Space Reeds (all-metal, semi-metal, pitchband, Flex-bac) . . . Certified Steel Heddles . . . Heddle Frames . . . Selvage Harness . . . Mending Eyes and Twine . . . Wardwell Loop and Doll Pickers.

★ **Emmons**

EMMONS LOOM HARNESS COMPANY
CHARLOTTE, N. C. · · · Lawrence, Massachusetts

SEE LATEST TEXTILE WORLD YEARBOOK FOR DETAILS ON ALL EMMONS PRODUCTS

Published Semi-Monthly by Clark Publishing Company, 218 West Morehead Street, Charlotte, N. C. Subscription $1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.

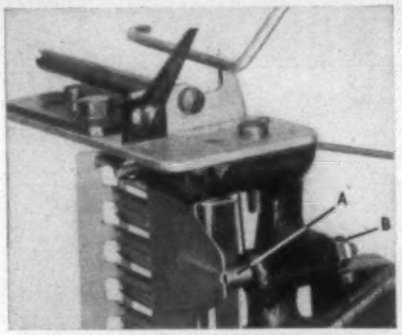
THIS IS NO. 19 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation

ANTI-WEAR TENSION ADJUSTMENT (NO. 50 WINDER)

At the back of the Anti-Wear Tension and set very close to the movable grid, is a plunger (A) known as the Tension Closer which is frequently neglected yet if accurately adjusted will improve winding quality.



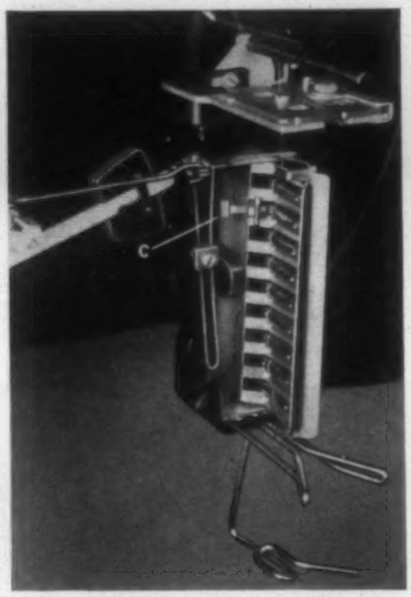
The purpose of this plunger is to prevent any quantity of yarn from passing through to the spindle without tension, which would occur if no provision were made to close the grids after being opened. When the movable grid is opened, for threading-up or for any other reason, the plunger is pushed back into the casting. When the grid is released, a spring behind the plunger closes the grid automatically. If plucks occur while winding, the plunger prevents the grid from opening too far and forces it back.

The Tension Closer is adjusted by means of two check nuts (B) on the far side of the casting. With the yarn running at the start of a package, there should be a .020 inch clearance between the plunger and the plate of the movable grid. The reason for this clearance is to allow the movable grid to open slightly as tension is released by the Differential Tension Lever.

The proper setting of the Tension Closer can be checked when the package on the winding spindle is full. At this point, the movable grid should be close to, but not touching, the plunger.

In the design of the Anti-Wear Tension, provision has also been made for preventing unnecessary end breakage caused by too violent action of the movable grid in closing. Whenever the grids are suddenly opened as the result of plucks or some other interference at the supply, there is a tendency for the movable grid to bound back, which will cause the yarn to wrap around the fingers of the Tension. The Tension Stop (C) serves to keep the movable grid from passing too far through the fingers of the stationary grid.

However, the Tension Stop should not be used to reduce the amount of tension on the yarn. Some mills do this, particularly when winding the finer counts of yarn, and, as a result, they prevent proper action of the Differential Tension Control.



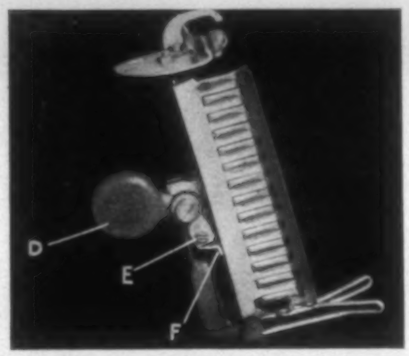
The Tension Stop should be set at the start of winding. With the yarn running, the fixer turns the screw on the Stop until it *almost* touches the finger on the movable grid. It must never touch — for fear of destroying the differential tension feature; if it should touch, the release of tension through the Tension Lever does not take effect until a considerable portion of the package has been wound.

ADJUSTMENT OF FINGER TENSION CLOSER (NO. 50 WINDER)

Using the Finger Tension, the same care must be applied in setting the Tension Closer. The weight (D) serves to close the movable half of the grid after the yarn has been threaded through the Tension. It also prevents the movable half from jumping open while the yarn is running.

The screw (E) just below the stud around which the weight pivots, is adjustable. With the yarn in the tension at the start of winding, the weight is down as far as it will go; this lower screw should now be loosened, which permits the Adjuster (F) to be pressed up *close* to the edge of the movable part of the Finger Tension — but not touching it.

Some mills, desiring to increase the tension on the yarn, mistakenly set the Adjuster to touch the movable finger, so that the weight of the Closer will keep the fingers pushed together. This is not the intention of the design, for it interferes with the proper action of the Differential Tension Lever and makes it impossible to do satisfactory winding.



CHECKING BEAM WEIGHTS AND YARN COUNTS

A weaving mill that has an accurate control of the yardage put on the beam, and of the tension on the yarn, can make a reasonably accurate check on actual yarn count by watching the weights of the beams off the warper.

Some mills keep a chart on a piece of graph paper, on which the beam weights are lined up on the left-hand edge and the corresponding yarn counts on the right-hand edge. These figures are originally worked out on the basis of a table like this:

30/1 400 ends 36,000 yards

Beam Weight (lbs.)	*Actual Yarn Count*
553	31.00
558	30.75
563	30.50
567	30.25
571.4	30.00
576	29.75
581	29.50
586	29.25
591	29.00

Mills running more than one yarn count or a varying yardage on the beams, keep separate charts for each condition.

Allowance can be made for variation in moisture content, and the wet and dry bulb reading at the time each beam is produced, can be recorded on the chart. Many mills follow this procedure in the picker room when weighing laps, and the same thing can be done at the warper. It is especially desirable for a mill operating a high speed system, because a beam can be produced within an hour or two during which time no great change in humidity can take place. With a slow speed system, requiring the better part of a day to produce a beam, there may be enough change in humidity to allow a slight error.

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UNIVERSAL WINDING COMPANY

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In a plant of any size, the yearly expenditures for coal represent a sizeable investment. Often, however, the responsibility for buying coal is placed on the shoulders of someone whose training is along entirely different lines.

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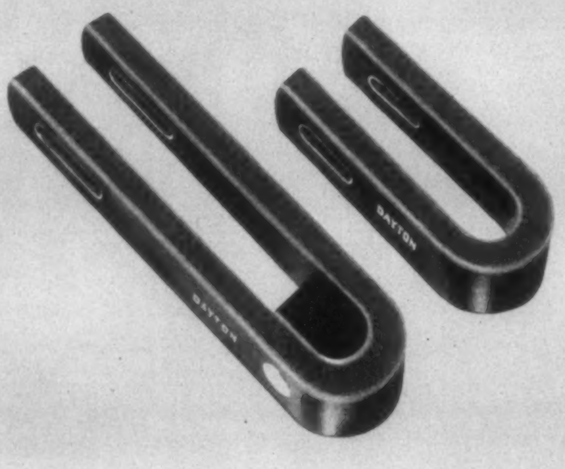
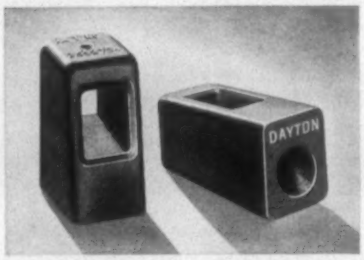
DAYTON BLUE LABEL LOOM SUPPLIES are products of Dayton's famed laboratory controlled manufacturing methods. They represent the best that quality materials, skilled labor, modern equipment and trained technical experts have so far produced. They embody the results of over *eight* years' experience in development, testing and production. Each and every product in the Dayton line of Blue Label Loom Supplies is designed and manufactured specifically for the job it is intended to do. And installation after installation have proved their longer life and greater economy. Write today for proof of their money-saving advantages or get complete details from your nearest distributor.

REVERSIBLE DROP-BOX PICKERS are made specifically for three purposes with the exclusive "Three-point Density" construction. Point No. 1.—Their composition is harder around the spindle rod. At this point a self-lubricating resinous bearing which will not become egg-shaped in service is used. Point No. 2.—A softer composition is used at the picker stick contact. Point No. 3.—Still another composition is used at shuttle contact for proper cushioning. So this "Three-point Density" construction accomplishes these three purposes: 1. Gives maximum cushion . . . positively will reduce picker stick wear. 2. Gives proper cushion to shuttle point. 3. Gives perfect throw to shuttle throughout the life of the picker.

DAYTON LUG STRAPS are specifically built with these 5 essential qualities:

1. They have extra strength beyond every requirement.
2. They have sufficient cushion to assure protection to other parts such as cam rollers and picker sticks.
3. They have the desired resilience plus the ability to absorb shock with immediate comeback.
4. They never require adjustment due to stretching.
5. They have long, trouble-free life. The low first cost of Dayton Lug Straps assures you greater economy. Their freedom from adjustment and their constant power maintenance assures you increased production and lower operating cost.





DAYTON LOOP PICKERS — Special fabrics bonded together with extra strong, resilient rubber give Dayton Blue Label Pickers the proper cushion and makes them stronger than other pickers of this type. Easy to install—they fit the stick and yet have sufficient reserve stretch to accommodate large and off-size sticks. Molded under controlled heat and pressure, they keep their shape and stay "put" on the stick—assure maximum efficiency and reduce weaving costs.

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Dayton Loom Supplies are protected by U. S. Patents issued or pending.

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Blue Label LOOM SUPPLIES

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DU PONT RESEARCH OFFERS YOU A NEW TEXTILE FINISHING AGENT

"Avitex" L

THIS new finishing agent is particularly recommended for softening fabrics or yarns—such as covert cloth, chambray, denim and cotton suitings—and for finishing stock-dyed staple rayon.

"Avitex" L has excellent rinsability, is soluble in high concentrations of common, Glauber's and Epsom salts, and is stable in solution even on prolonged boiling.

It increases the absorbency of fibers, making it effective in the finishing of fabrics to be Sanforized shrunk. On staple viscose fibers it has a pronounced anti-static effect, with improved spinning properties evident in lap formation, on running in the cards and in drawing. The softening and anti-static effects are also important for cotton and rayon yarns.

We welcome an opportunity of going over with you in detail the many superior properties of this new, more efficient agent. Write Du Pont for either information or technical assistance.

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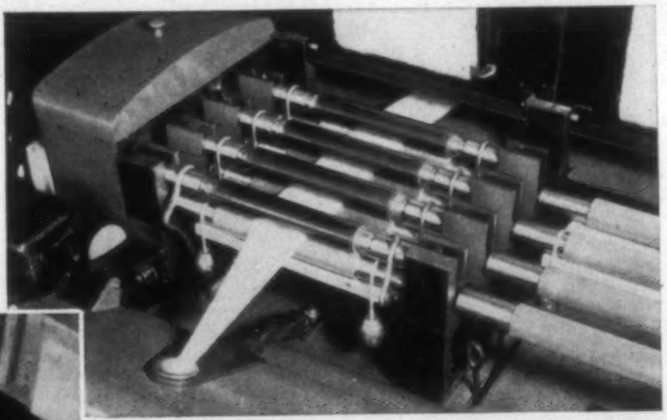
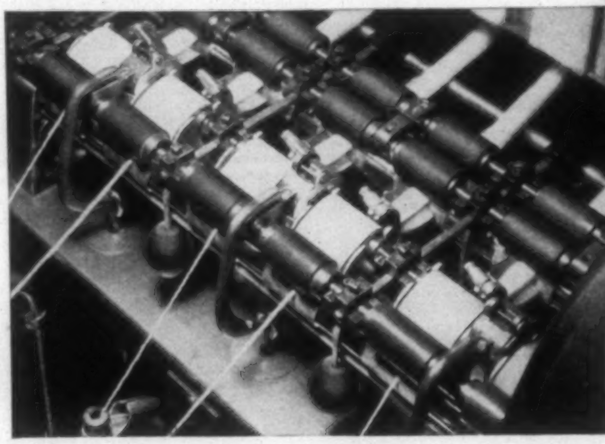
for PROCESSING MIXED STAPLES ON COTTON EQUIPMENT

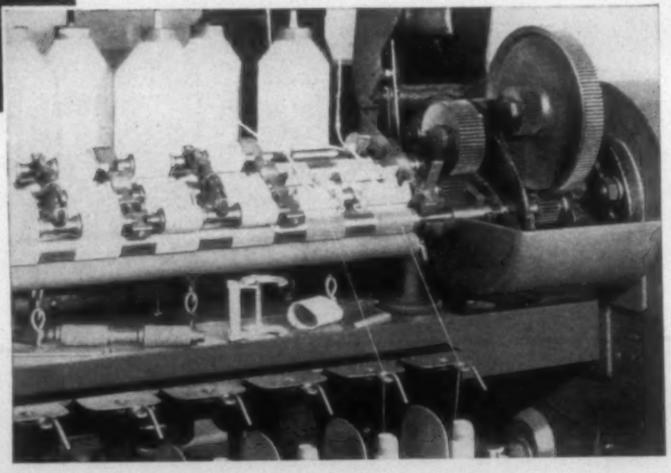
Install

THE NEW WHITIN Drawing Frame with special wide roll stands, and larger diameter cushion rolls, for better control of fibers and evener sliver.





The apron carrier principle utilized in Super-Draft Roving, vital to best results. Only Super-Draft is capable of properly drafting mixed fibers of varying lengths.



Modern high speed, wide gauge Spinning Frames, incorporating the specially designed Whitin Long Draft System for maximum drafts. Full control of fibers within the high draft field, possible only with double carrier aprons.

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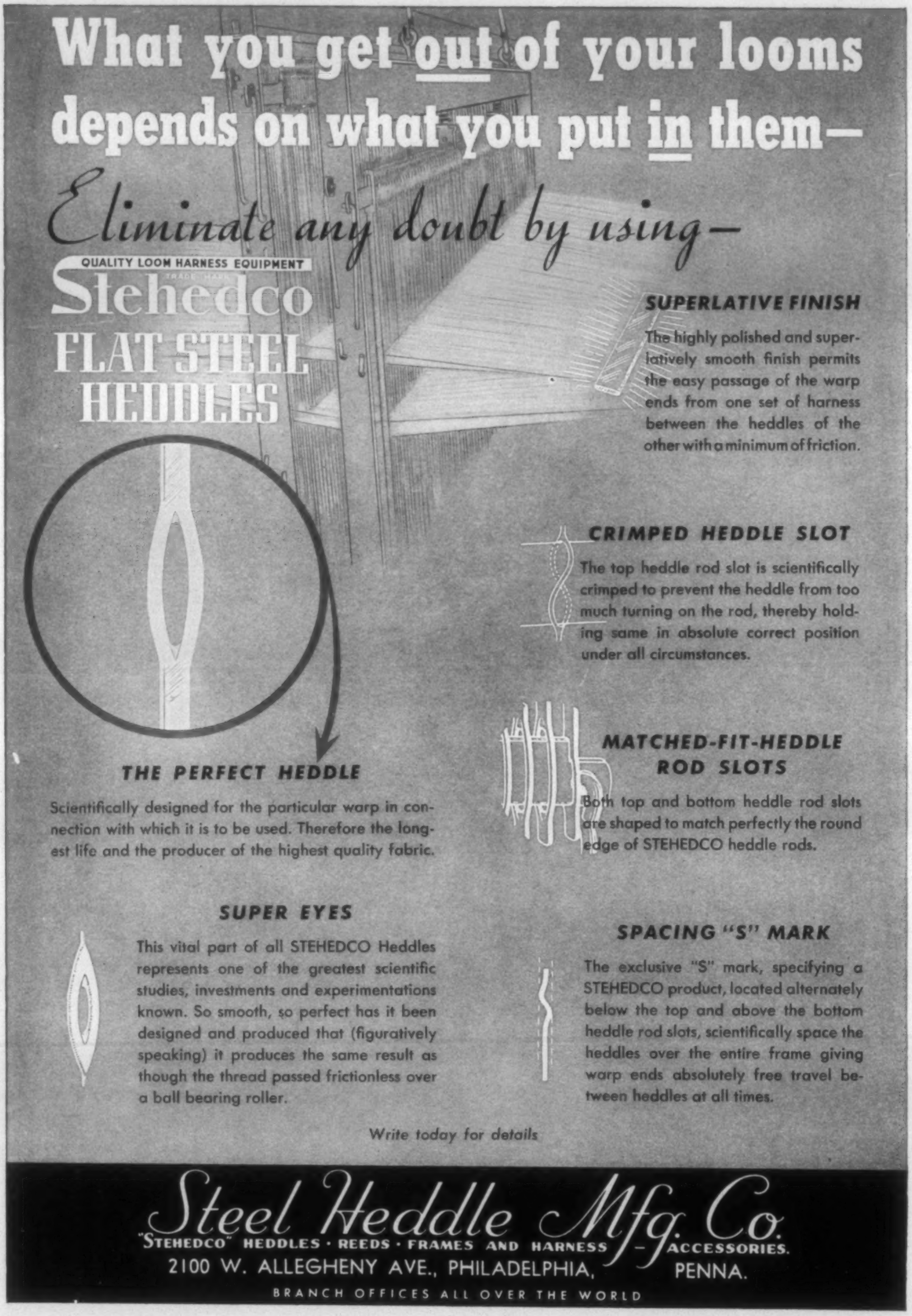
CHARLOTTE, N. C.　ATLANTA, GA.



What you get out of your looms depends on what you put in them—

Eliminate any doubt by using—

QUALITY LOOM HARNESS EQUIPMENT

TRADE MARK

Stehedco

FLAT STEEL HEDDLES

SUPERLATIVE FINISH

The highly polished and superlatively smooth finish permits the easy passage of the warp ends from one set of harness between the heddles of the other with a minimum of friction.

CRIMPED HEDDLE SLOT

The top heddle rod slot is scientifically crimped to prevent the heddle from too much turning on the rod, thereby holding same in absolute correct position under all circumstances.

MATCHED-FIT-HEDDLE ROD SLOTS

Both top and bottom heddle rod slots are shaped to match perfectly the round edge of STEHEDCO heddle rods.

THE PERFECT HEDDLE

Scientifically designed for the particular warp in connection with which it is to be used. Therefore the longest life and the producer of the highest quality fabric.

SUPER EYES

This vital part of all STEHEDCO Heddles represents one of the greatest scientific studies, investments and experimentations known. So smooth, so perfect has it been designed and produced that (figuratively speaking) it produces the same result as though the thread passed frictionless over a ball bearing roller.

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The exclusive "S" mark, specifying a STEHEDCO product, located alternately below the top and above the bottom heddle rod slots, scientifically space the heddles over the entire frame giving warp ends absolutely free travel between heddles at all times.

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That's the role that du Pont research and technical service plays in Peroxide Bleaching. Developing new processes . . . standardizing routine methods to meet changing demands caused by new fibres and fabrics . . . working hand in hand with mill heads and engineers right in the bleach house . . . that's the day by day job that du Pont is doing to achieve better work at lower costs.

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WITH A DESTINY

This is a very particular cone. It is a cone with a destiny...a destiny such as very few cones achieve. Only a cone wound with the particular kind of rayon with which this cone is wound could *hope* to achieve it. For this cone is wound with Crown Rayon, which means that when that Rayon is woven or knitted, converted and finished it may bear the mark of Crown Tested Quality—providing it meets the rigid standards set by the Better Fabrics Testing Bureau, official analytical laboratory of the National Retail Dry Goods Association, for various points of consumer satisfaction.

And then it will be recognized and sought for by millions of consumers who like to be *sure* when they buy!

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The World's Largest Producer of Rayon Yarn

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WITH GARGOYLE VACTRA OILS

STARTING AND RUNNING TORQUE can be minimized by protecting loom bearings with Gargoyle Vactra Oils. These oils maintain a persistent film on bearing surfaces after shutdown...help looms start easily. During operation, their tough film stays put... helps keep down "drag" and reduce "oil throw," too.

CALL IN **Socony-Vacuum for**

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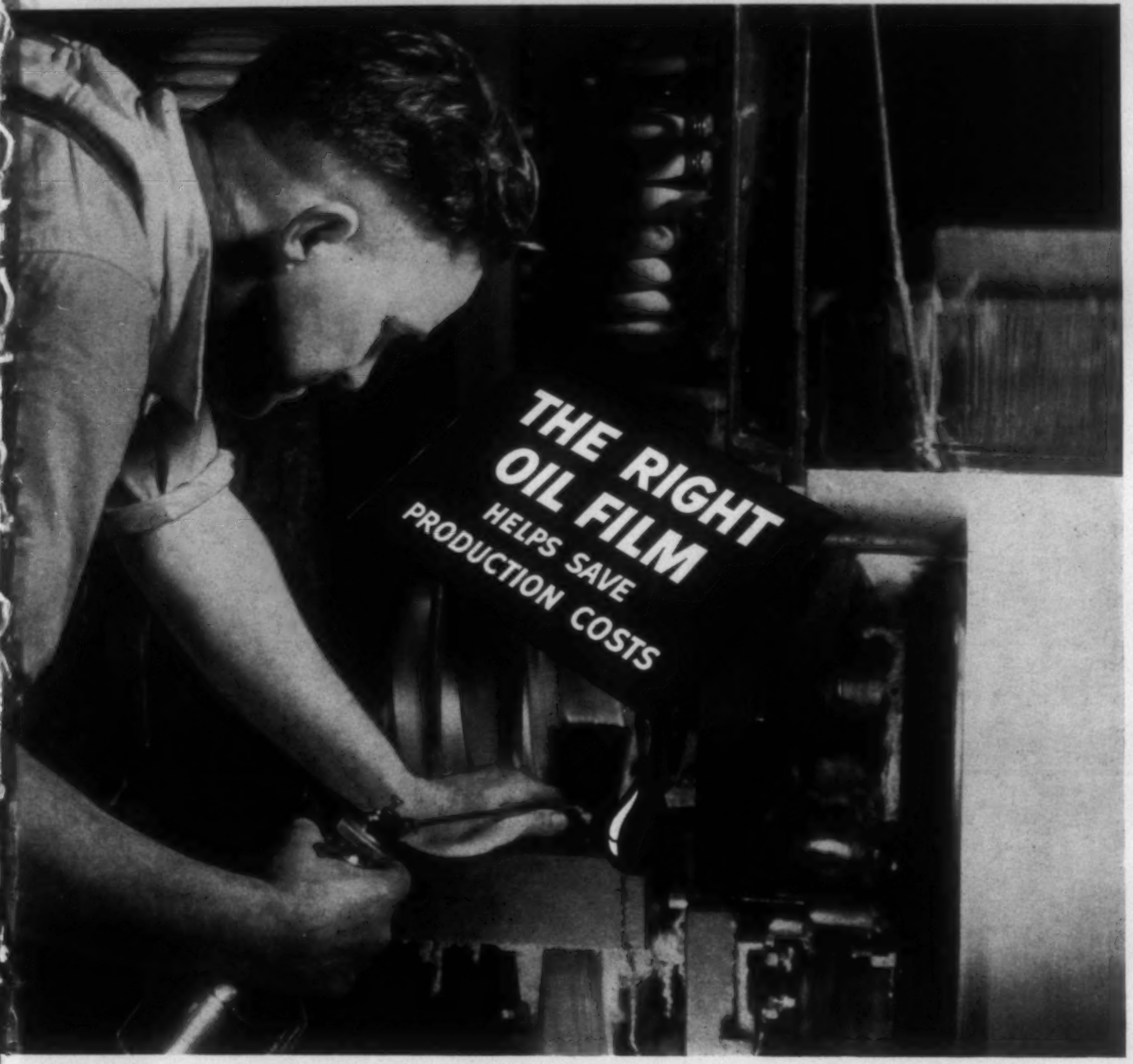
☞ **SKILLED LUBRICATION COUNSEL** of a Socony-Vacuum man backed by 7 years' experience...the greatest in the Petroleum Industry.

☞ **A COMPLETE LINE** of Lubricants ... the scientifically correct lubricant for every type of machine you now own ... or will buy.



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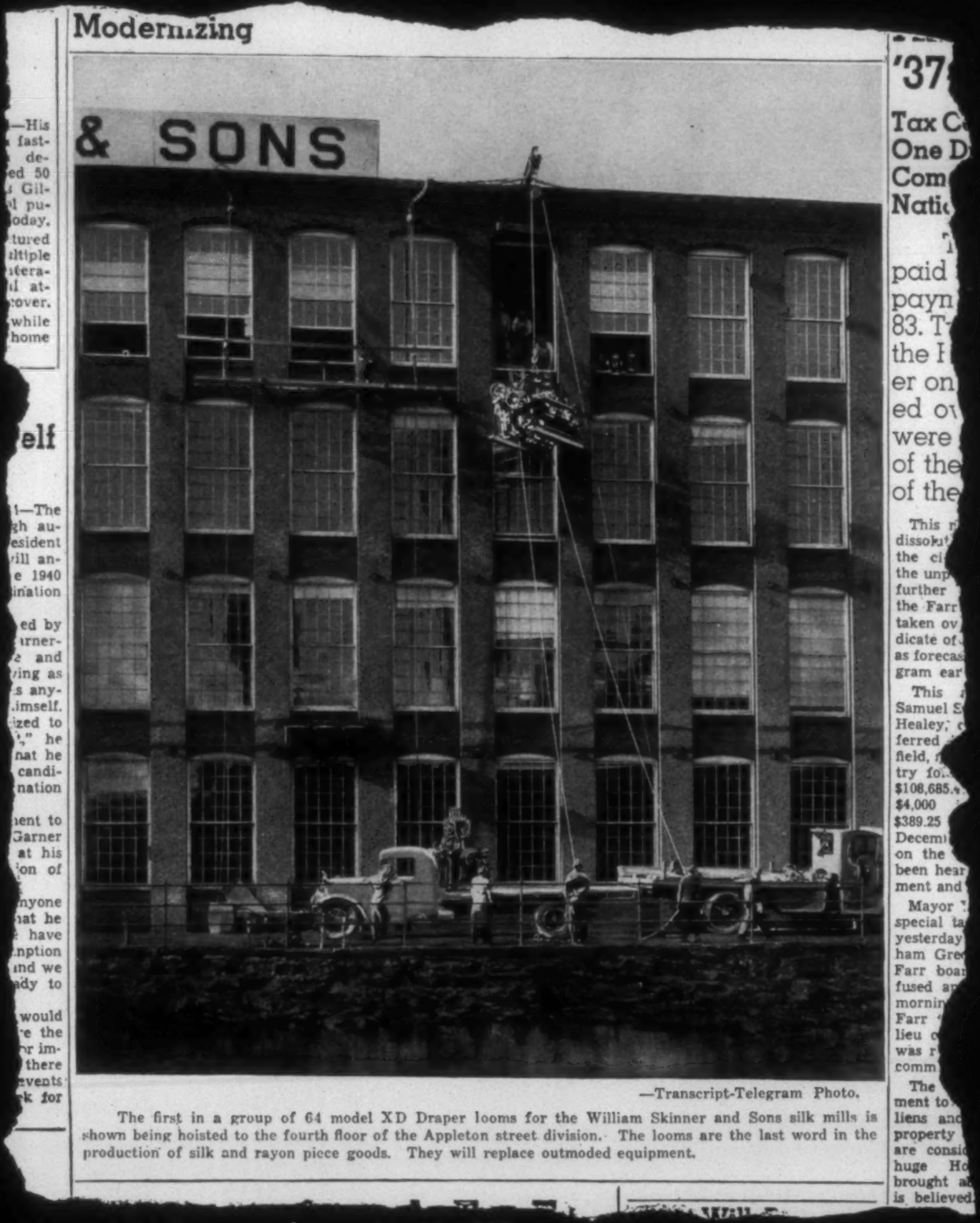

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Modernizing

—Transcript-Telegram Photo.

The first in a group of 64 model XD Draper looms for the William Skinner and Sons silk mills is shown being hoisted to the fourth floor of the Appleton street division. The looms are the last word in the production of silk and rayon piece goods. They will replace outmoded equipment.

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From Holyoke Transcript of November 24, 1939.

DRAPER CORPORATION

CHIEF, THESE REPORTS ON THE RUNNING OF OUR WORK CERTAINLY PROVE YOU WERE RIGHT ABOUT ARMSTRONG'S CORK COTS.
JUST AS I THOUGHT, PETE, AND WE'VE ALSO CUT OUR ROLL COVERING COSTS IN HALF!

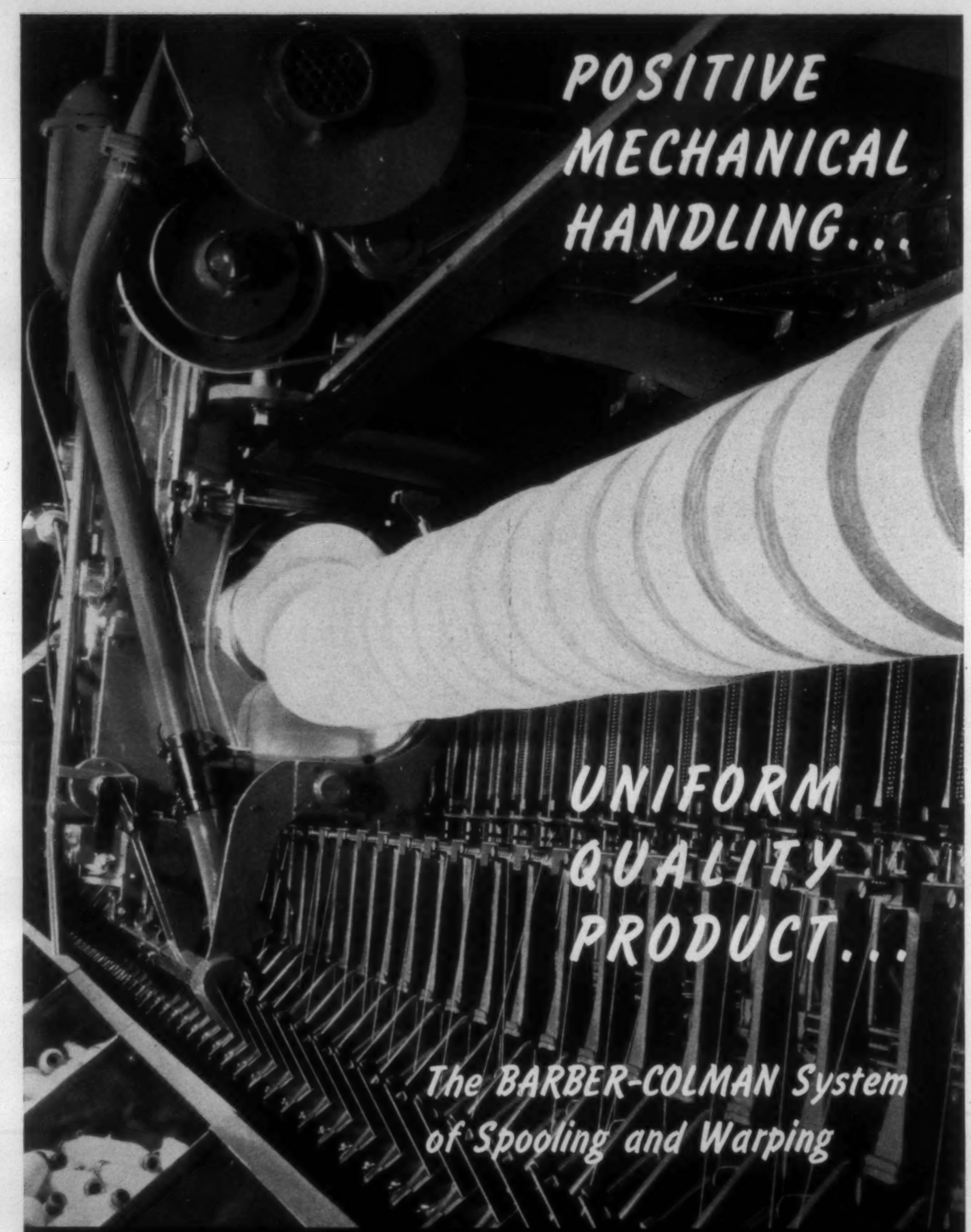
ON the *quality* side, Armstrong's *Extra Cushion* Seamless Cork Cots have much to offer. The higher coefficient of friction of cork makes it possible for mills to produce stronger, more uniform yarn. Furthermore, you get better running work with these cots . . . fewer top roll laps, less end breakage, and far less clearer waste.

On the *savings* side, Armstrong's Seamless Cork Cots—*now* in use on more than *eight* million spindles—have proved their economy. Savings begin at once—with quicker, cheaper assembly. Made of strong, lively cork composition, these cots last longer than other coverings. And they can be rebuffed up to *five times*—at a cost of only one-half cent a roll. Mill after mill has reported savings as great as 50% on roll covering costs since installing Armstrong's Seamless Cork Cots.

Let an Armstrong representative show you how *your* mill can cut production costs and step up quality with a change-over to cork. Ask him to show you actual production figures of mills spinning your range of numbers on cork cots. Or write Armstrong Cork Co., Textile Products Section, 921 Arch Street, Lancaster, Pa.

ARMSTRONG'S *Extra Cushion* SEAMLESS CORK COTS

CORK PRODUCTS SINCE 1860


POSITIVE MECHANICAL HANDLING...
UNIFORM QUALITY PRODUCT...
The BARBER-COLMAN System of Spooling and Warping

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TEXTILE BULLETIN

Member Audit Bureau of Circulations

Vol. 57 February 15, 1940 No. 12

The Technologist and Textile Merchandising*

COMPETITION has brought about vast changes and marked advances in merchandising and manufacturing. It has always so worked, and it always will. When I entered this industry, both of these processes, that is, manufacturing and merchandising, were largely taken for granted and followed routine and well established lines. The textile technologist as such was then an undiscovered specie. Fibres, too, were like other values in life—relatively unchanging, and their merits were well known. Competition was less intensive, and over-production, as we know it, was unknown. The influence of high-speed and highly developed manufacturing machinery was yet to be felt. The emphasis then was on long profits, not on volume. Growth was considered sound only if accompanied by profits in direct proportion to increase in volume. In Europe most industrial activities are still influenced by this pre-mass production concept. This theory may have been supportable in another era; it is no longer tenable.

Last Spring when I was abroad, I was afforded an opportunity to study the textile industry in several countries and thereby came to realize more clearly than ever before, how vastly different from ours is the industry as they know and conduct it. One outstanding justification of our present methods of operation which can be put forth—and there are many others—is the large per capita consumption of textiles in the United States. No other nation in the world approaches us in this, though in recent years by reason of ersatz and political considerations, Fascist nations have taken the lead in rayon production.

Merchandising Is Final Test

Specifically, competition has accomplished constantly lowering costs, and lowering costs have been attained through more effective machinery, better mill planning, and most important advances in management techniques. The usual procedure is for the progressive organizations to blaze the trail to higher standards of performance, but gradually others follow, whereupon the new efficiency of the few becomes the standard of the many. An inevitable accompaniment of this process is enlargement of production. In a word, lower unit cost usually expresses itself in production increase. Thus the total supply is constantly being amplified not only in this way but also by the marginal producer who is like the proverbial cat with nine lives—he hangs on. Under prevailing conditions the final test of success rests with merchandising or, better, the coordination of production with merchandising. In this, the technologist and the creator of fabrics play an important role—but more of this later. First, let me complete the sketchy outline of the background upon which our industry functions.

The movement described has made for standardization of mill equipment. In recent years mills have been planned and re-equipped along closely similar lines. This has tended to create standardization of woven products, a fact which in itself brings pressure upon prices. It would seem that one of the disadvantageous results which has been created thereby is the narrowing of the base of fabrication. In each of its branches, the industry today is one of relatively few basic fabrics. The 92/68 pigment rayon taffeta twalle is a perfect example of fabric standardization. I well recall, when we sold our first contract for this cloth, we confined it to one converter for the season. This now seems absurd in the light of subsequent events. The establishment of the standard ply fabric constructions now known as Grenai followed years of trial and error. For a considerable period it was regarded as a novelty. The standard spun rayon challis and flakes, in cottons, the combed broadcloth, the carded slub-filled poplin, the 70s combed voile are but a few of many which have become staples but which were regarded far differently when they first appeared.

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*Address delivered by Mr. Sidney R. Scheuer on February 7, 1940, at a meeting of the American Association of Textile Technologists.

Diversification of Fabrics

The prevailing gospel of many mill managements is: "Let the other fellow diversify while I grind out the basic staple weaves." The ideal of this policy is never to change yarns or constructions. Unfortunately, the other fellow is usually not so accommodating and does not diversify. But all this is a perfectly natural accompaniment to so radical an advance in manufacturing efficiency. It is clear that a gradual change must occur in this attitude. Indeed, if it did not follow, the industry would ultimately find itself hopelessly trapped in a profitless prosperity. As the profit margins in the staples decline, the profit opportunities in the specialties and new developments will look more attractive. As has been indicated, the outstanding specialty of today usually becomes the staple of tomorrow—and tomorrow is certain to bring with it equally important creations. This all adds up to the fact that the production of new constructions must attain a permanently larger percentage of the total if the recent and contemplated investments in mill machinery are to continue to justify themselves.

Now, this is more easily said than done. The similarity in mill equipment to which I have referred, in itself restricts the latitude for fabrication, novel process or manipulation—but I use the word "restricts" advisedly. It does not preclude successful efforts in this field, but makes necessary the development of new ideas within the limitations of equipment primarily designed for mass production. This calls for severe mental discipline and concentration. If such restraints were not present, the task of producing new fabrics would be a relatively simple one. Any experienced person can conceive attractive weaves and constructions, but few can match those ideas to the demands of machinery and competition.

What are the considerations which must control the builder of new fabrics? First, price will bear some relationship to the price of staples, as unfortunately, though naturally, buyers make all comparisons with base constructions and values. Second, all the technical elements necessary to pass the high standards of marketability must be present. Third, they must be new and yet permit of broad use and manipulation. Ample opportunity is present for novelty developments and for specialties, but the yardages which such fabrics absorb, important though they may be, are insufficient to provide occupation for the bulk of machinery in place, and this is the large problem. You, gentlemen, are charged with the responsibility of devising and developing machinery, process and fabric ideas necessary to maintain and expand the avenues into which textile products flow, and this is a never-completed task.

Essential Qualifications

It seems to me that being an effective technologist calls for much more than technical skill. It requires broad knowledge of the industry, and the broader that knowledge, the more effective is likely to be one's contribution. The person who lacks general understanding of the procedures and methods of his industry in all its activities, from production to distribution and through consumption, cannot be as useful as the man who possesses such knowledge. Doctors become specialists only after general training and practice is completed, and in this regard the lawyer, the engineer and the chemist each pursues similar courses. In order to function effectively, then, you must have lived, and live, the industry in all its ramifications; you must understand its competition and where its products go and why—all of which involves close application, absorption of the vast literature connected with the industry, a knowledge of its economics, an acquaintance with the history of fabrication, an ability to keep pace with current and prospective developments, an understanding as to why individual fabrics succeed and others fail, the influence of new fibres, their trend and outlook, the extent to which the chain store and mail order expansion should influence fabric and merchandising effort. Essential above all else are creative gifts, coupled with the power of observation and the ability to reason logically. Lacking such qualities, mere quantitive knowledge will not produce results. But I must assume these natural gifts, and the more recent record of our industry amply testifies to their presence.

Grey goods merchandising is the neck of the textile bottle. This activity divides itself sharply between cottons and rayons, and sub-divides itself further in the various classifications of fabrics produced and marketed. As a practical matter, therefore, it is necessary to generalize and inasmuch as I understand it is your custom to have a question period follow, I assume that any matters in which you are interested will be raised by you.

Cotton vs. Rayon

What are some of the generalizations? In cottons, the raw material value is a constantly fluctuating element; in rayons it is a relatively stable one. In cottons, labor accounts for a larger share of the total manufacturing cost than in rayons. Cotton cloth production and conversion requires a considerably longer period of time than does rayon. Cotton yardages are vastly larger than are rayon yardages, and their unit value, on average, much lower. Rayon weaving units are not as numerous as cotton, and their merchandising is done through fewer and frequently larger organizations. Moreover, rayon fabrics are much more limited in their uses. The major share of rayon woven goods are absorbed in apparel, whereas in cottons, industrial, household and innumerable other uses account for well over half of the woven goods produced.

The primary and basic difference between rayon and cotton converting, more especially of dress apparel textiles, is that the former involves judgment and action based on short periods of time and quick turnover, whereas the latter involves longer time and slower turnover

(*Continued on Page 48*)

Important Chemical Developments in the Textile Industry*

By Dr. E. R. K. Schwartz

The first part of this very interesting paper was published in the issue of February 1st. The remainder follows:

Some Uses of Synthetic Resins

Synthetic resins are playing an ever-increasing role in textile processes. Many new and different types of resins are constantly being introduced. For instance, the so-called alkyd or modified alkyd resins are being used for various effects, such as slip-reducing finishes, also as substitutes for older types of finishes. Some of them may be used in connection with starch such as a thermoplastic resin called Textac, made by the Hercules Powder Co This resin acts as a binder for the starch, prevents dusting off and makes the back-filling or finish more permanent. It also makes softeners practically unnecessary and allows more filling to be used. Of course, many other resins are being used and experimented with, such as the methacrylates or polyvinyl resins, but they have not as yet achieved great commercial importance for textile purposes.

There is one more point I should like to mention about the use of resins, although it has only indirectly to do with textiles. But it serves to illustrate the possibilities of resins for uses which might have seemed far fetched some time ago. You are all familiar with the importance which water serves in the processing of textiles. You also know that hard water can create any difficulties for the dyer and finisher. The reason for that is that the so-called hardness formers, mainly calcium and magnesium ions combine with the fatty acids in soap and vegetable oils to form insoluble metallic soaps. These are difficult to remove and cause all sorts of difficulties in dyeing and finishing. One of the most widely used systems of removing the hardness formers from water, works according to the so-called "exchange principle." This means that the sodium base of the softener is exchanged for the calcium and magnesium in the water. So instead of forming insoluble metallic soaps the soluble sodium soaps are formed. This exchange takes place while the water passes through a layer of Zeolite or Permutite in a tank. Zeolites or Permutites are naturally mined silikates or based upon natural compounds. In recent years, a new class of suitable synthetic exchange compounds have been discovered. These are on the one side condensation products of aromatic compounds of basic character, especially polyvalent phenols or natural tanning compounds with formaldehyde. These types of resins are suitable for exchanging cations. On the other hand, it has been found that condensation products of amines (mostly aromatic amines) with aldehydes are suitable for anionic exchange. The fundamental difference between the known types of synthetic resins and these exchange resins is that the ordinary types of synthetic resins are chemically indifferent, whereas, the exchange resins are chemically very reactive compounds. They are manufactured in a way as to maintain their character of high molecular acids or bases. The structure of these resins is that of a gel, having a very large inner surface, which increases the reactivity of these resins to a great degree. These resins are being used in Europe by various mills very successfully. These two systems, that is, the water softening system based on Zeolite principle and the resin softening system, are being run side by side in a very large European rayon plant. The results are extremely interesting and very much in favor of the resin system. The capacity of the same plant, simply by substituting the resin filling for the Zeolite filling was stepped up from 1200 cubic meter per day to 3000 cubic meter. That is more than twice the former capacity. The possibilities of this new way of water softening are quite apparent—either an increase in the capacity of the same size plant or a considerable saving in space and cost for the same capacity. There are many other features connected with this new development of which only the possibility of removal of salt up to 97%, as well as heavy metals, may be mentioned. So it might be possible to get water nearly as pure as distilled water that way. Even the Ph of water may be changed at will by selecting the right resins.

Science of Ionization

The science of ionization has contributed greatly in enabling us to understand the reactivity of textile fibers. It has led to new conceptions about dyeing and finishing, or textile processing in general. For example—if scoured wool fiber is immersed in the usual latex solution, there is little deposition of rubber upon or within the fiber, because both have the same electrical charge, that is, both have a negative charge. So in order to secure a rubber deposition on wool, the charge on one of the components has to be changed. This is effected by incorporating a quaternary ammonium compound (in other words, a cationic soap) in the latex solution so that the rubber particles acquire a positive charge. Applying these ideas, wool materials can be given a rubber content of 5 to 10% by immersing them in an alkaline dilute latex solution whose rubber particles have been given a positive instead

(*Continued on Page 47*)

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*Paper presented at meeting of American Association of Textile Technologists, December 6, 1939.

Visiting The Textile Shop

By David Clark

IT had been several years since I had visited The Textile Shop, operated by Ernest J. Eaddy at Spartanburg, S. C., and when I was in Spartanburg on February 8th, I found that they had, about two years ago, moved from an old building on the west side of Spartanburg to a location on the Union Highway and had erected the modern building shown above.

When I reached the office, Mr. Eaddy, who is now an enthusiastic and very large user of stainless steel, was conferring with H. W. McCullough, of the Atlanta office of the Crucible Steel Co. of America.

Mr. McCullough, recognizing the fact that The Textile Shop was in a position to use large amounts of stainless steel, was making plans to stock in Atlanta the sizes and grades which they would need from time to time.

After Mr. McCullough left, Mr. Eaddy took me through the shop, which has about 12,000 square feet, and I found many new machines and improvements.

When they began to use stainless steel, for slasher cylinders and dry cans, about one year ago, Mr. Eaddy found it necessary to install machines especially adapted to its use.

Stainless steel has about four times the tensile strength of copper and is not affected by acids. It costs $65 more to re-cover a slasher cylinder with stainless steel instead of copper and it appears to us that the advantages far outweigh the cost.

With the equipment which Mr. Eaddy has, he can weld stainless steel seams and, after the cylinder is polished, it is almost impossible to locate the seam. So accurate is the work that the tolerance, that is, the out of circle distance, is always less than the tolerance upon the stainless steel sheets as received.

On the floor were about ten slasher cylinders, most of them from large mills. Some were being recovered with copper and some with stainless.

Mr. Eaddy called my attention to the hole, or tear, in a copper slasher cylinder which had just come in. It was evident that the mill had repaired a small tear with soft solder and then, as the tear progressed across the cylinder, had kept on repairing with soft solder until the place became so bad that they had to shut down the slasher and send the cylinder to The Textile Shop.

Mr. Eaddy said: "If they had called us when the first hole appeared we could have cut out a small zigzag piece and welded a new piece in its place and there would have been no further damage. They have gone on patching with soft solder and allowing the tear to spread and now the entire cylinder has to be recovered at a much increased cost. In the meantime as each hole appeared it made bad places in the warp and seconds in the goods and now the slasher has to stand for several days."

I asked him if the cylinder had originally been covered with stainless steel would the holes have occurred and he said not.

Other work being done in The Textile Shop was repairing picker screens, card screens and the manufacture of bolts and nuts.

A department is devoted to the building of spinning frame cylinders and they have developed processes for insuring strong and true running cylinders.

Another department manufactures vacuum cleaning systems for spoolers and warpers upon which they own the patents and also an overhead system for taking the steam from cylinders.

Recently they have developed a plan for replacing worn parts upon the boxes of box looms. They replace the worn edges with interchangeable brass lips and also build replaceable brake rod bushings.

The impression I obtained from my visit to The Textile Shop was that they were doing high quality work and that, in the shop, efficiency was stressed.

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6. Superior leveling, dispersing and penetrating agent.

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Undominated Labor

(Address made Jan. 31, 1940, over Radio Station WJVS, Washington, D. C., by Frank T. Bow, General Counsel of National Council of Independent Unions.)

I AM going to start my very brief talk by asking you a question. This question is directed to men and women who are, or who have been, union members, but I hope you of my audience who have never been union members will think about it, too.

The question is really in two parts. First: Do you consider yourselves actually free people in union affairs? That may seem a strange query, but bear with me a minute and don't answer it too quickly. Hold back just a moment until you have heard the second part of the question, which is this: Can you say what you please about the conduct of the affairs of your union; can you speak out about union policies; can you make your officers do what you want them to do and make them refrain from doing what you do not want them to do; do you control the selection of your officers all the way up; can you demand and get a complete and honest and understandable statement of where your union money goes; can you resist an assessment, let us say an assessment for political purposes, levied upon your pay against your will and get away with it; can you do any or all these things fearlessly and as a right without being railroaded out of your union by self-appointed and self-perpetuating officers and deprived of your right to earn a living? Can you? I hope that your answer is—"Yes," but I know that in too many cases the only honest answer must be—"No." And if your reply is "No," my good union friends, you are not free men and women and you cannot, without a cruel penalty, exercise the rights which are inherently yours as American citizens. The question boils down to just about this: Do you and can you run your own union for your own benefit, or—are you exploited for the benefit of union leaders who tell you what to do and you do it or else—?

Some Not Free Men

A man who holds his job and earns his living solely by his ability and willingness to do his work is truly a free man economically, and he can look the world in the face and tell it what he thinks on any subject, any time. That man represents the American ideal of a free, independent worker. He symbolizes "Undominated Labor;" undominated by anyone. If, in order to keep his job and earn his living, a man has to depend upon something else besides his ability and willingness to do his work, if he has to think as his employer thinks, say what his employer wants him to say, keep silent when his employer wants him to keep silent, stay out of a union if his employer does not like unions, or join the union his employer directs him to join, that man is not a free man. He is dominated by his employer.

And if that man, our worker about whom we are talking, may not question or even approve effectively the policies of his union leaders without being given the quick choice of shutting up or getting out, of remaining docile or being kicked out of his job by his own so-called leaders, if he must pay when they say "pay," strike when they say "strike," he is still not a free man. He is just as effectively dominated by the ruthless men who have saddled themselves upon him as he might be by his employer.

In neither case does he approach the American ideal of "Undominated Labor."

Assessment for Political Campaign

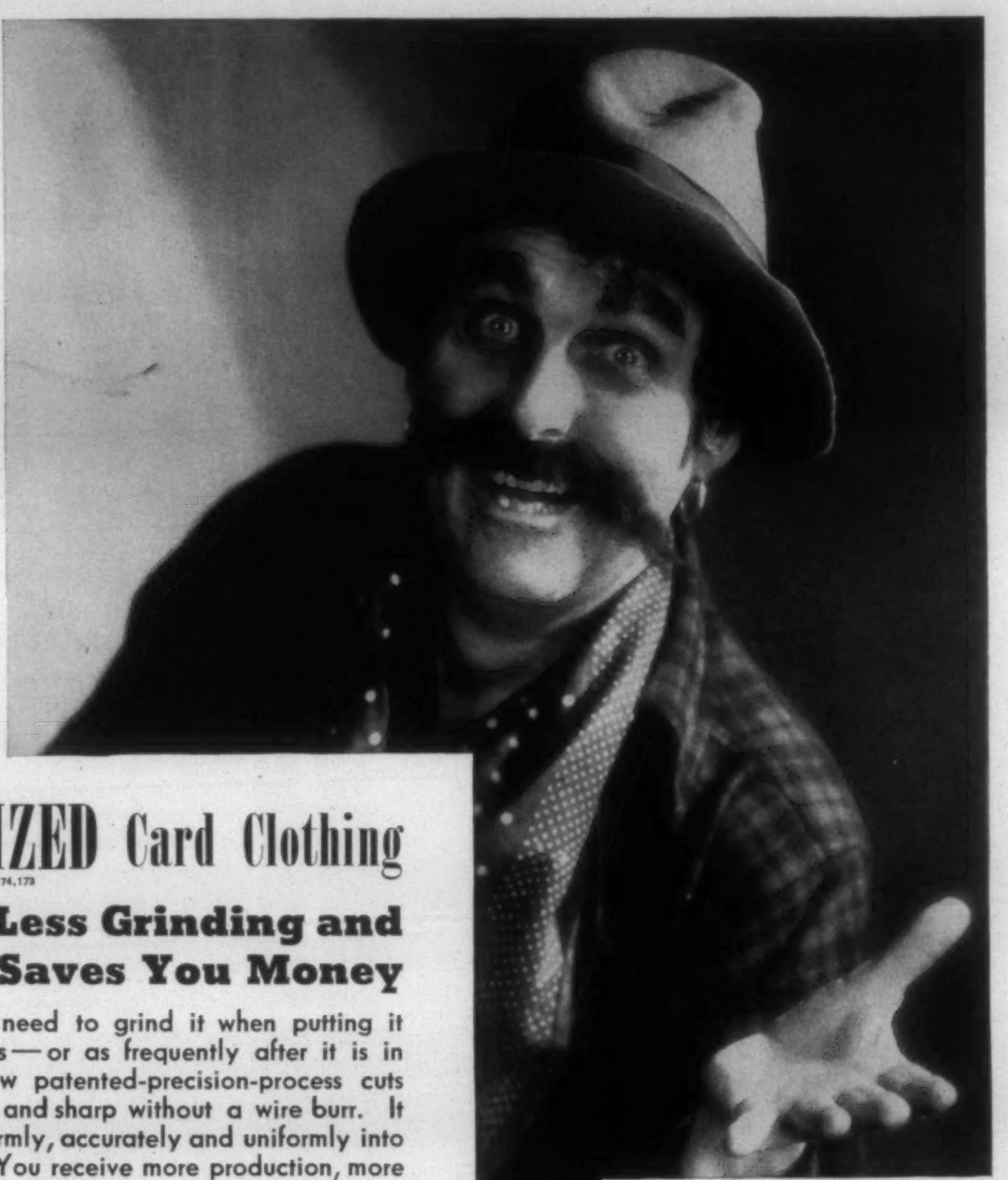
Let us take a recent instance that all of us know about. The leader of one of the biggest unions in the nation has imposed an assessment, a tax, of two dollars per head upon the half-million or so members of the union for a political campaign fund. The disposition of that money is in the hands of one man. Now, I ask you this: Did the members of that union vote upon or agree to or have anything to say about that tax? You know they did not. And will they have anything to say about what will be done with the money? You know they will not.

Now, among the members of this union there must be Democrats, Republicans, Socialists, and—in the light of the newly discovered purity and Americanism of its leaders—even Communists. The Democratic members of the union will not want their money to go to the Republican party campaign fund, and the Republican members will not want it to go to the Democratic party, and the Socialists and maybe Communists will not want it to go to either of the major parties. Can they do anything about it? They cannot. And if they make any noise about it, out they go. Or can they repudiate their national officers at the next election of officers? Again the answer is, they cannot. Nothing so old-fashioned and democratic as the election of national officers by the members is permitted. Now, finally, are the members of that union free and undominated labor? I leave the answer to you.

Independent Union Like Stepchild

Now, here is a strange thing. The ideal of "Undominated Labor" is the ideal of independent unionism, of unions run by the members for the benefit of the members and wholly controlled by the members. Yet, the wholly undemocratic, even autocratic, union I have been talking about is viewed with warm approval by those great idealists who have to do with the labor policies of our national government, while the free, democratic independent unions are looked upon with disfavor and suspicion and are kicked around like step-children. And let me add that, like step-children, the more our independent unions are abused the tougher and more enduring they become. The fact that they have had to compete with government-favored unions has made them depend upon service and responsiveness to their membership for their strength. The result is, unhappily for those who would destroy us, that

(Continued on Page 42)



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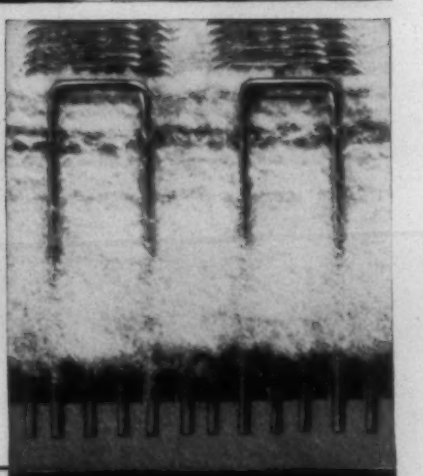

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Blockade Threatens Tie-Up of Cotton Exports

Washington, D. C.—Federal farm officials have expressed concern that British action tightening the German blockade and imposing further restrictions on shipping might prevent the export of upwards of $50,000,000 worth of cotton already sold abroad.

American exporters have sold approximately 6,300,000 bales of cotton to foreign buyers so far this marketing season. Only a little more than 4,000,000 bales have been shipped. The sales were under a Government export subsidy program requiring delivery before August 1st.

Because of a shortage of ocean freight space and British blockade restrictions, some Agriculture Department officials predict that actual shipments abroad this season will be a million bales less than sales. The season ends July 31st.

Jacobs Co. Building Again

Charlotte, N. C.—The E. H. Jacobs Mfg. Corp., which removed its plant to Charlotte a little more than one year ago from Johnson City, Tenn., is now building its third warehouse at its plant on Dowd Road, it was announced by President W. Irving Bullard.

The new unit is practically complete, Mr. Bullard said.

The company, which is a subsidiary of the E. H. Jacobs Mfg. Co., of Danielson, Conn., produces wood parts for the textile industry. The present expansion is being made in answer to increased business.

Mr. Bullard said the transfer of his company's activities to Charlotte was a happy move, in that it brought him closer to the heart of the textile industry, gave to his concern lower freight rates, and at the same time placed him closer to raw materials, such as hickory wood.

Stuart W. Rabb Opens Sportswear Mfg. Plant

Easley, S. C.—Stuart W. Rabb, of Greenville, S. C., has leased the old Easley High School Building for a period of several years and will open a sportswear manufacturing plant there between February 15th and March 1st.

The plant will employ between 35 and 50 persons when it opens for operations and will have a weekly payroll of about $1,000.

The plant will manufacture men's sports ensembles, Mr. Cassels said.

Mr. Rabb was an executive of the Erlanger Cotton Mills in Lexington, N. C., for 19 years. He recently moved back to Greenville to begin work preparatory to the opening of the plant.

Entertain Woodruff Overseers

Woodruff, S. C.—H. B. Kilgore, general manager of the local branch of Brandon Corp., and Mrs. Kilgore were hosts at a lovely dinner Saturday evening, February 3rd, at their home, "Kilbirne," the guests being the overseers, superintendents and office force of the plant.

Those enjoying the dinner were Superintendent C. P. Dill; Overseers J. L. Foster, C. M. Padgett, J. K. Taylor, Smiley Griffin and I. B. Garner; Harold Taylor, R. C. Boyter, O. L. LeRoy, Smith Thomas, and LeRoy Taylor, and R. B. Hunt and J. L. Foftis, former overseers, who are now making their home in Greenville.

Selling Agents Elect Four New Directors

New York.—At the annual meeting of the Association of Cotton Textile Merchants of New York, held recently, the following were elected to serve as directors for three years:

R. E. Benson, Jr., of Woodward, Baldwin & Co.; Geo. M. Miller, of Turner Halsey Co.; Rosser J. Smith, of Southeastern Cottons, Inc., and E. W. Schumaker, of Nashua Mfg. Co.

Herman Cone Witness Unusual Golf Shot

Hollywood Beach, Fla.—One of the most unusual shots in golf was witnessed by Herman Cone, president of the Proximity Mfg. Co., of Greensboro, N. C., while playing in a foursome at the Hollywood Beach Hotel golf course on February 3rd.

The shot was an eagle obtained at the 436-yard 16th hole when the brassie shot of Larry Gannes, New Rochelle, N. Y., pro, carried 225 yards against the wind to drop into the cup on the fly. Gannes and Al Roth, of New York, were playing against Mr. and Mrs. Cone.

Storage of Cotton Nearer Mills Urged

Washington, D. C.—Reconcentration of government loan cotton in warehouses closer to textile mills and points of domestic consumption is urged by Representatives Harold D. Cooley, Alonzo D. Folger and W. O. Burgin, and George Ross, senior marketing specialist of the North Carolina Agriculture Department, in conferences with officials of the Commodity Credit Corp.

North Carolina mills consumed approximately two million bales of cotton last year, and yet only 1,500 bales are stored in the warehouses of the State, the group pointed out. This condition necessitates increased transportation costs when the cotton is reclaimed and concentrates the supply in large warehouses at a few seaboard points.

The discussions, which will be continued, will include a study of the bill sponsored by Cooley that would require the corporation to store the cotton closer to the points of consumption.

Mill Men in Southern States Industrial Council

At the annual meeting of the Southern Industrial Conference Council, held at Atlanta, Ga., on January 23rd, 1940, Donald Comer, of the Avondale Mills, was elected first vice-president, with Thos. J. Wallner, of Virginia Maid Hosiery Mills, also a vice-president.

Kemp P. Lewis, of the Erwin Cotton Mills, Durham, N. C., and E. J. McMillan, of the Standard Knitting Mills, Knoxville, Tenn., were elected directors.

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Personal News

G. H. Strick is general manager of the Nolde & Horst Co. of Tennessee, at McMinnville, Tenn.

W. O. Ruffin, formerly of Siluria, Ala., is now superintendent of the Opp and Micolas Cotton Mills, Opp, Ala.

Nelson Rau is superintendent of the Nolde & Horst Co. of Tennessee, at McMinnville, Tenn.

J. A. Parker has been promoted to the position of overseer of carding, Brookside Mills, Knoxville, Tenn.

Harry Shealy is now overseer of spinning at the Capital City Mill of Pacific Mills, Columbia, S. C.

Clyde Waldrop is now overseer of weaving at the Jackson Mills No. 3, High Shoals, N. C.

C. M. Hilderfield has become manager of the G. & E. Hosiery Mills, Durham, N. C.

A. J. Williamson is owner and superintendent of the new Williamson Hosiery Mills, Englewood, Tenn.

W. R. Garrison is now superintendent of the new Alamance Hosiery Mill at Graham, N. C.

R. M. Horton is superintendent of the recently organized Moers Hosiery Mills, Inc., Nashville, Tenn.

Lewis Avery is superintendent of the new Harnett Hosiery Mills, Dunn, N. C.

Chas. F. Perry is now superintendent of the Hickory Knitting Co., Hickory, N. C.

Wade Hammond has been made overseer of carding at the Capital City mill of Pacific Mills, Columbia, S. C.

J. M. Jeffries, formerly of Kosciusko, Miss., is now overseer of carding and spinning at the Opp Cotton Mill, Opp, Ala.

Landrum Cothran, an overseer at the Spartan Mills, has been quite ill at the General Hospital at Spartanburg, S. C.

J. M. Boiter is now overseer of weaving at the Fountain Inn, and Simpsonville, S. C., plants of the Woodside Cotton Mills.

S. L. Stack, formerly of the Jefferson Mills, Jefferson, Ga., has been made superintendent of the Sanford Mills, Sanford, N. C., succeeding D. G. Floyd, resigned.

R. T. McWade has resigned as general superintendent of the Brookside Mills, Knoxville, Tenn., to accept a similar position with Joseph Bancroft & Sons Cotton Mills, Reading, Pa.

F. N. Moore, formerly of Aliceville, Ala., is now second hand in the weaving department at the Micolas Cotton Mills, Opp, Ala.

Wm. R. Connelly has been appointed assistant superintendent of the Hampton Division of Pacific Mills, Columbia, S. C.

B. W. Bingham has been promoted from superintendent of carding and spinning to general superintendent of the Brookside Mills, Knoxville, Tenn.

T. M. Tyner, assistant general manager of S. Slater & Sons, Slater, S. C., and Miss Margaret Swink, of Woodruff, S. C., were married recently.

Benjamin J. Borteck is now manager of the Petersburg Hosiery Mills, formerly B. G. & D. Hosiery Mills, Petersburg, Va.

James Oates, formerly overseer of carding at the Brookside Mills, Knoxville, Tenn., has been promoted to the position of superintendent of carding and spinning.

William Couch, former hosiery buyer of Miller-Jones Co., Columbus, Ohio, has joined the Bryan Hosiery Mills, of Chattanooga, Tenn., in an executive capacity.

Ira L. Ashe has been promoted to the position of assistant overseer of carding at the Brookside Mills, Knoxville, Tenn.

R. L. Hulsey, formerly with Edna Mills, Reidsville, N. C., has accepted a position with the Sibley Division of Sibley-Enterprise Co., Augusta, Ga., as overseer of carding.

John M. Berry, president of the Cherokee Hosiery Mills and the Rome Hosiery Mills, Rome, Ga., has been re-elected a member of the board of directors of the First National Bank of Rome.

Raymond Ratcliffe, superintendent of the Town House Hosiery Mill, Chilhowie, Va., has resigned to join the Wallner Mills in Pulaski, Va.

Eugene B. Carter, treasurer of the Chas. H. Bacon Co., Lenoir City, Tenn., has announced his retirement from the hosiery mill business because of failing health and eyesight.

Bliss Kizer, for several years office manager of the Chas. H. Bacon Co., Lenoir City, Tenn., has been elevated to the position of treasurer of the company, succeeding Eugene Carter, retired.

W. K. Mauney, textile executive of Kings Mountain, N. C., was recently awarded the Silver Beaver Award for distinguished service to boyhood during 1939 by the Piedmont Council of the Boy Scouts of America.

J. H. Burgess is overseer of weaving at the Gayle plant of the Springs Cotton Mills, Chester, S. C. He was formerly with Woodside Cotton Mills at Simpsonville, and Fountain Inn, S. C.

John T. Latham, Auburn graduate, who has been in charge of the Vocational School at Spray, N. C., has resigned to accept a position with the engineering department of Marshall Field & Co.

H. Gilmer Winget, superintendent of the Victory and Winget Mills, of Textiles, Inc., Gastonia, N. C., was recently awarded the Silver Beaver Award for distinguished service to boyhood during 1939 by the Piedmont Council of the Boy Scouts of America.

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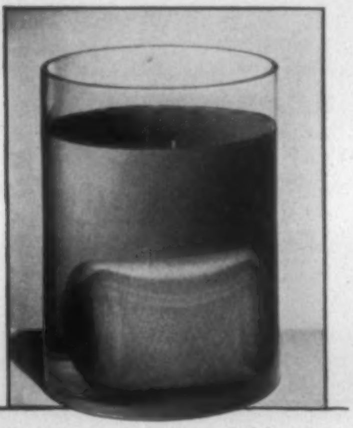

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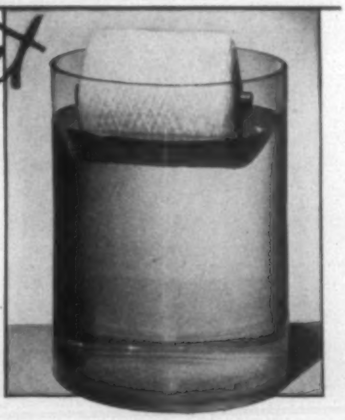

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RÖHM & HAAS CO., INC.
222 West Washington Sq.
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DAMAGED PAGE(S)

W. S. Pepperell Goes With W. J. Carter

W. S. Pepperell, formerly purchasing agent of the Burlington Mills Corp., has accepted a similar position with the mills managed by W. J. (Nick) Carter. These mills are the Carter Fabrics Corp., of Greensboro, N. C., South Boston, Va., the Cleveland Cloth Mills, Shelby, N. C., and the Slater Mills, Slater, S. C. Mr. Pepperell will have his office at 611 Jefferson Standard Bldg., Greensboro, N. C.

Modern Pioneer

In celebration of the 150th Anniversary of the founding of the Patent Office, 30 inventors, research workers and scientists from northeastern Ohio and western Pennsylvania were given recognition as Modern Pioneers and awarded Certificates of Merit for their scientific contributions at a dinner in Cleveland on February 7th. The Cleveland dinner is one of a series of 15 dinners to be held in the principal industrial areas of the United States.

Hayden B. Kline
Vice-President in Charge of Plant Operations

Hayden B. Kline, vice-president in charge of plant operations of Industrial Rayon Corp., is one of the Modern Pioneers, receiving his award for the conception and direction of the development of the new continuous process for making rayon that is employed in Industrial's new plant at Paynesville.

Bullard Gives $5,000 To Hospital

W. Irving Bullard, of Charlotte, N. C., president of the E. H. Jacobs Mfg. Co., of Charlotte, N. C., and Danielson, Conn., has made a donation of $5,000 to the orthopedic department of the new Charlotte Memorial Hospital, which is soon to be opened.

Since moving to Charlotte, Mr. Bullard has taken an interest in civic affairs and was an active member of the group of citizens which raised the funds which made possible the $1,000,000 Memorial Hospital.

A new campaign has been launched for $200,000 of memorial gifts and Mr. Bullard took the lead by donating $5,000 to the orthopedic department.

Mill Employee Loses Right Leg in Accident

Burlington, N. C.—R. E. Wagoner, May Hosiery Mill employee, was injured severely in an elevator accident at the mill January 30th.

The injured man's right leg, crushed below the knee in the accident, was amputated at Alamance General Hospital.

Mill officials said Wagoner was hurt when he apparently slipped off the side of the moving elevator while attempting to adjust the load on the machine. His leg was caught between the elevator floor and the shaft.

Killed in Automobile Accidents

Hubert Butler McAlister, 22-year-old Clemson College graduate employed at the Slater Mfg. Co., Slater, S. C., died in a Spartanburg hospital on February 11th from injuries sustained in an automobile wreck near Spartanburg, S. C.

James Henry Williams, 32, Seminole Mill textile operative, and Wilburn L. Owens, 30, Trenton Mill employee, were instantly killed February 11th when the car in which they were riding overturned on a curve on Gastonia-Kings Mountain highway.

55 Years With Marshall Field

Honoring E. D. Pitcher, who on January 31st had completed 55 years of continuous service with Marshall Field & Co., a group of friends and business associates attended a party at the Fieldale, Va., Lodge and enjoyed a delightful dinner. Friends offered congratulations to Mr. Pitcher and in other ways expressed their appreciation for the long period of service with this organization. Mr. Pitcher started working for Marshall Field & Co. in its wholesale accounting department, Chicago, in 1885, and after 24 years of service there was sent to Spray when Marshall Field & Co. acquired mills in North Carolina. For many years after Mr. Pitcher came to North Carolina, he was secretary and treasurer of the Carolina Cotton & Woolen Mills Co., as the Marshall Field & Co. mills were called at that time, and is at present actively on the job in the comptroller's department at Spray.

E. D. Pitcher

At the Fieldale party Luther H. Hodges, general manager of the manufacturing division, presided and during the dinner read a large number of telegrams from friends and former associates of Mr. Pitcher. Mr. Hodges, himself, has spent 23 years with the mills of Marshall Field & Co. Some other long service men present were: C. P. Wall, superintendent of the Bedspread Mill, Leaksville, 39 years; J. Frank Wilson, manager, Fieldale Mills, 30 years; S. L. Golden, comptroller's department, Spray, 25 years; G. L. Ivie, sales manager of domestics, New York, 22 years; H. Z. Smith, Fieldale Office, Fieldale, 21 years; J. O. Thomas, personnel manager, 20½ years; J. M. Norman, Jr., manager, Karastan Rug Mill, Leaksville, 16 years; and Joe H. Lindsay, manager of five North Carolina Mills, 15 years. Other members of the Marshall Field & Co. organization present were C. C. Campbell, J .G. Halsey, Earl Brown, H. W. Whitcomb, and Bentz Howard. Present also were Dr. John B. Ray, Spray, and Hubert Quinn, of Detroit.

Taylor Heads Emmons' New York Office

W. S. Taylor is now in charge of the New York office and Charlotte, N. C. Emmons' new office is at 171 Madison avenue. Mr. Taylor will handle the entire Emmons line, including certified steel heddles, heddle frames, cotton harness, and reeds, and will represent Emmons in Pennsylvania, New Jersey and parts of New York and Connecticut.

Morgan Sells for Dayton Rubber

William L. Morgan, of Greenville, S.C., has been appointed sales representative for textile loom supplies and roll coverings as manufactured by the Dayton Rubber Mfg. Co., Dayton, Ohio.

Mr. Morgan brings to his new job a wealth of knowledge regarding textile plant operations gained through his sales engineering experience of many years in textile mills of all types.

WANTED

Salesman to cover part of North and South Carolina with

Mr. Swenson, a prominent Mason, had been associated with the Whitin company for 19 years, and had been superintendent of the company for the last nine years. He is survived by his wife, Mrs. Gloria Swenson, of Charlotte; a stepdaughter, Mrs. James E. McRoberts; a stepgrandson, James E. McRoberts, Jr., and a brother, K. O. Swenson, all of Worcester, Mass.

MATHEW C. KIRKPATRICK

Greenville, S. C.—Mathew Craig Kirkpatrick, 53, master mechanic at the American Spinning Co., Greenville, died on January 21st. He had been in failing health for sometime.

Mr. Mathews had been a master mechanic for the past 28 years, having worked in mills throughout the two Carolinas. He had been with the American Spinning Co. for six years.

He is survived by his widow, five daughters and three sons.

WALTER RIGBY

Columbus, Ga.—Walter Rigby, 75, veteran technologist at the Columbus plant of Bibb Mfg. Co., died suddenly recently.

Mr. Rigby's career with the Bibb covered a span of approximately 40 years, during which time he was superintendent of the cotton department and superintendent of e Columbus mill. He worked up to these posts from the ce of overseer which he first held with the company. his latter years he served as adviser in several departts.

JOEL DAVID CHARLES

reenville, S. C.—Joel David Charles, 50, for some s previous to 1925 secretary of Conestee Mills and re that associated with Woodside Cotton Mills, died recently after six months of declining health.

ecently he had been sales representative for the Gasa Mill Supply Co., of Gastonia, N. C., and for the achner Leather Belting Co., of Charlotte, N. C.

MRS. WALTER S. MONTGOMERY, SR.

Irs. Walter S. Montgomery, Sr., of Spartanburg, S. C., ially prominent and member of one of the South's ding textile manufacturing families, died unexpectedly Atlanta, Ga., on January 20th. She was 67 years of e.

Mrs. Montgomery was the widow of a prominent texe executive and the mother of Walter S. Montgomery, esident of the Spartan Mills, Startex Mills and the affney Mfg. Co.

MRS. R. A. WILLIS

Mrs. R. A. Willis, 62, of Edgemoor, S. C., wife of the ecretary-treasurer of the Manetta Mills at Lando and Ionroe, N. C., and mother of the general superintendent f the Monroe plant, died on January 25th at the Columbia Hospital, Columbia, S. C. Funeral services were conducted at Edgemoor, S. C.

TEXTILE BULLETIN

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Spartanburg as a Manufacturing Center

We congratulate Spartanburg County of Sou Carolina upon its 1937 records as recently leased by the U. S. Department of Commerce

Upon the basis of increase in the value of m ufactured products, from 1929 to 1937, Spart burg County led the two Carolinas, stood third the Southeast and twentieth in the entire nati

The value of Spartanburg County manuf tured products does not yet equal the output other counties, but it increased from 1929 1937, whereas many counties showed a decrea

The figures on value of manufactured pro ucts for the leading counties in the Carolin were:

	Value of Products 1929	Value of Produ 1937
Rockingham, N. C.	113,995,539	96,402,9
Guilford, N. C.	97,024,414	80,777,8
Gaston, N. C.	69,083,052	53,017,8
Greenville, S. C.	57,887,553	64,508,79
SPARTANBURG, S. C.	$ 46,613,101	$54,185,64

Active Cotton Spindles for Twenty Years

The table in next column is from a Government publication. It tells such a vivid story of the transfer of the cotton textile industry to the

many statements relative to Northern cotton mills being moved South because the Southern increase is far less than the Northern decline. It is also true that most of the increases in the South have been made with new machinery.

Year	Cotton Growing States	New England States (000's omitted)	All Other States	United States
1919	14,846	18,065	2,018	34,930
1920	15,230	18,287	1,962	35,480
1921	15,708	18,387	1,950	36,047
1922	15,906	17,938	1,862	35,707
1923	16,310	18,053	1,895	36,260
1924	16,944	17,066	1,839	35,849
1925	17,292	15,975	1,764	35,032
1926	17,574	15,525	1,650	34,750
1927	17,893	14,995	1,520	34,409
1928	18,281	13,815	1,472	33,569
1929	18,540	12,537	1,338	32,417
1930	18,585	11,351	1,307	31,245
1931	18,073	9,655	1,251	28,979
1932	17,629	8,565	1,076	27,271
1933	17,928	8,205	760	26,894
1934	18,511	8,457	773	27,742
1935	18,211	7,763	725	26,700
1936	17,834	6,091	738	24,664
1937	18,243	6,424	750	25,419
1938	18,128	5,918	727	24,774
1939	17,665	5,408	657	23,731

current events are used to develop communistic ideas. For instance, during the war in Spain, the so-called Loyalists, who were communists, were pictured as heroes who were fighting for their country and deserved the support of all people.

Students are required to study "Current Events" and stand an examination upon them, and in that way many come to look upon the insidious propaganda as gospel.

If some of our readers will investigate their high schools they will have better understanding of the causes which lead two groups of young people to stand with Russia and approve its rape of little Finland.

Fakers Appearing Again

At intervals two groups of fakers visit Southern textile mills and it seems that they always find a new group of suckers.

About 40 years ago the tool steel game was first worked and many mills found that as the result of trick contract, they received a carload of tool steel when they thought that they were buying a few bars. One mill at Kings Mountain, N. C., about 1900, found that they had purchased more tool steel than they could use in fifty years.

Within the past two months, three groups of men have been going through the South selling for 59 cents and 34 cents, and under a fancy name, tool steel when exactly the same steels can be purchased for 30 and 18 cents.

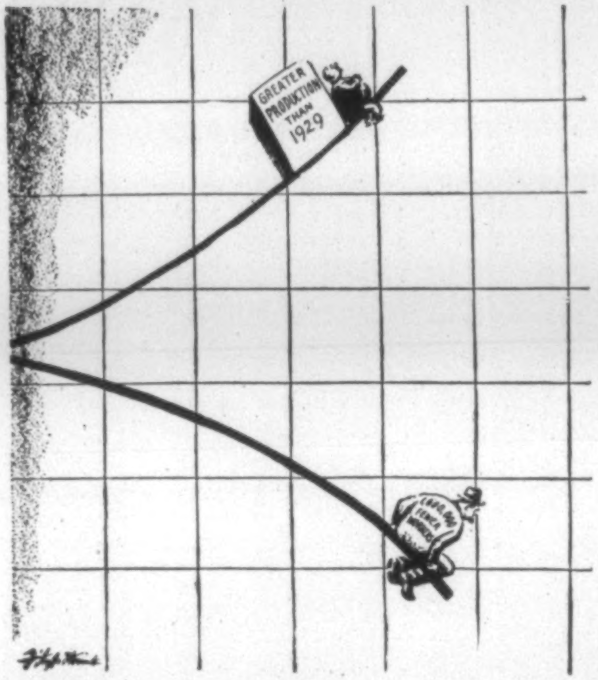
Again a trick contract is being used and whereas short bars are expected, they are being shipped in 30-foot lengths.

When a mill objects to paying, a suit is threatened and many pay, but a sale based upon fraud and deception is not legal, and in spite of the threats of the fakers no mill which refuses to pay has ever been forced to do so.

We have upon our desk a letter from a mill which has been victimized by gypsy coppersmiths who use a trick contract for retinning slasher cylinders and dry cans and then render exorbitant bills. We have records of mills who have paid from $700 to $1,500 for repairing slasher cylinders when the same and better work could have been done by reputable firms for from $150 to $300. There is no obligation upon any mill to pay upon the basis of a trick contract.

There are legitimate and reliable supply houses in the South who sell tool steel from well established manufacturers and there are reliable firms who repair slasher cylinders and dry cans, but there seem to always be enough suckers in Southern textile mills to furnish a good living for tool steel fakers and gypsy coppersmiths.

Chart of Progress Toward Something or Other.



The above cartoon which we noted in several newspapers should cause people to pause and to do some serious thinking.

According to 1933 publicity, the primary objective of Franklin D. Roosevelt and the New Deal was to relieve unemployment. The labor unions predicated their support of Federal wages and hours legislation upon the claim that by shortening the hours of work more workers would be required to produce goods.

In spite of the above claims, we find that we are now producing more goods than in 1929, but are now not only not using more workers but there are less men and women employed in industry.

The answer to regulations and regimentation has been to improve processes and equipment so that few workers are required to produce goods and therefore fewer instead of more people have to be employed.

$96,000,000 for Cotton Parity

The Department of Agriculture stated last Tuesday that parity payments would amount to $225,000,000 and that $96,000,000 of same would be used for parity payments on cotton.

The February 10th letter from a well known Washington service says:

"New push for higher farm funds will develop in May or June.

"We think **some sort of processing tax** is possible."

Mill News

KNOXVILLE, TENN.—Remodeling of the Morristown Silk Mill, Morristown, adapting it for rayon weaving, is under consideration.

LINCOLNTON, N. C.—Melville Mills, Inc., have recently completed the installation of 1,000 additional spindles. The company manufactures fine combed yarns.

MIDDLEBORO, KY.—It is reported that Martin Bros., of this city, will erect a seamless hosiery mill and have placed contracts for machinery.

LINCOLNTON, N. C.—Recent additions to the dyehouse equipment of the Glenn Mfg. Co. has increased the capacity of the dyeing department about 50 per cent. G. C. Turner is superintendent.

SPARTANBURG, S. C.—The Spartan Mills have begun the installation of 78 X-model looms, which the company recently purchased. Fifty thousand Saco-Lowell long draft spindles have already been installed by the company, and before this installation had been started they had completed the installation of 36,000 spindles. In the No. 2 spinning room and the carding department, the humidifying systems have been revamped and additional American moistening heads have been installed.

GREENVILLE, S. C.—At the Woodside Cotton Mills here the slasher room has recently been completely modernized. New equipment was installed in this department including three two-cylinder slashers, two cooking kettles, and one storage kettle. This comprises the machine equipment in this department. It is stated that all temperatures are controlled automatically by instruments, and the whole room has had its efficiency increased through the kettle rearrangement, the installation of improved venting of the slasher hoods, new size-handling methods, and the training of the operating personnel.

WESTMINSTER, S. C.—Construction of an addition containing about 15,000 square feet of floor space is under way at the plant of Oconee Mills, Inc., a subsidiary of Beacon Mfg. Co., of Swannanoa, N. C., at Westminster.

In order to make room for the addition, the cloth warehouse measuring 72 by 60 feet has been moved about 100 yards. Grading has been completed for the addition and a start has been made on steel work for a one-story building with saw-tooth roof.

Daniels Construction Co., of Anderson, is the contractor.

Mill officials did not reveal plans for use of the addition, but it was generally understood it will provide for weaving unit and an increase in employment. Heretofore the mill's output has been confined to yarns.

The Beacon concern purchased the plant about two years ago and since that time it has been modernized with the installation of much new machinery.

ORANGE, VA.—Clarileen Fabrics Corp., a New York corporation, with principal office in Virginia at Orange, with Louis Teillon agent in charge of business, has been granted a certificate of authority by the Virginia Corporation Commission to manufacture and deal in fabrics of all kinds. Maximum capital is $50,000.

LINCOLNTON, N. C.—Operations have begun in the new plant of the Crown Converting Co. here in the building of the old Elm Grove Cotton Mill. Completely remodeled, the new building has been equipped with fluorescent lighting.

New equipment installed includes a Smith-Drum skein mercerizing machine, a 102 Foster Winder, 6 Universal Winders, a Proctor Dryer, and a 212 H.P. boiler. The company has recently inaugurated vat and naphthol dyeing of yarns.

Wm. M. Lentz, N. C. State College graduate, is president.

ELLENBORO, N. C.—Plans are being considered for putting the plant of Queen Anne Mills Co. back in operation under the common stockholders. The mill has been operating under proceedings for reorganization, which were filed some time ago.

A hearing on the proposals was held recently in the chambers of Federal Judge E. Yates Webb at Shelby, N. C. Attorneys, creditors' representatives and stockholders were among those attending the hearing.

Judge Webb set March 23rd as the date of a final hearing in the matter. Details of plan of operations are expected to be worked out at that time.

COWPENS, S. C.—George Norwood, Greenville banker, has announced the sale of Cowpens Mills, excluding machinery and the village, to W. S. Griffin, Jr., of Greenville, as agent, who named the purchasers as R. C. McCall, young Easley business man, and D. T. Manget, Newnan, Ga., cotton man.

The amount involved was not disclosed. Mr. Norwood said the sale was the first step in proposed liquidation of the mill by the creditors whom he represented in buying the mill recently for $47,500. Machinery and village will be sold later.

Mr. Norwood said the deal would be completed next week, or as soon as the creditors title to the property could be cleared. He said the plant had been sold subject to the clearance of title.

Mr. Griffin said Mr. McCall and Mr. Manget have not indicated what they planned to do with the property. He added the amount involved was "considerably higher than that paid for any similar property in this section in some time."

Included in the sale are the mill plant proper, three warehouses, the mill store, the mill offices, and the spinning and sewing rooms.

Mill News

Belton, Tex.—An effort is being made to reorganize and re-equip the former Belton Yarn Mills. A Mr. Edney is interested. This mill has been idle for several years and most of the machinery has been moved away.

Radford, Va.—The addition to the Century Ribbon Mills has been completed, and will double the capacity of the plant when the installation of machinery is completed. It is estimated that about 150 additional operatives will be required.

Patterson, N. C.—The Yadkin Cotton Mills, Inc., which was recently formed with a capitalization of $100,000, is reported to be getting ready to begin operations after having taken over local property.

G. L. Whisnant and R. O. Whisnant, both of Maiden, N. C., will be head of the new operating company.

Walhalla, S. C.—The Kenneth Cotton Mills, of this place, have announced plans for a two-story addition, which will measure 30x75 feet and which will represent a cost of more than $45,000, including equipment. Charles W. Fant, of Anderson, S. C., is the architect. The company manufactures cotton and silk filled bedspreads and draperies. W. K. Stringer, of Anderson, S. C., is president and treasurer of the mills.

Opp, Ala.—The Opp and Micolas Cotton Mills, of this city, are undergoing some very drastic changes in a modernization program, as follows:

At the Opp plant 115 new Model X Draper looms have been installed; also 3 new Abbott Winders have been put in; new Whitin Inter-draft roving frames have been put in; all spinning is being overhauled and converted to long draft by Dixie Spindle & Flyer Co., of Charlotte, N. C.

At the Micolas plant 300 new Model X Draper looms are being installed; all spinning is being overhauled and converted to long draft; one Abbott Winder is being installed; all roving frames are being changed to Whitin Inter-draft.

McComb, Miss.—Holdings of Berthadale Mills, Inc., were bid at a trustee's sale in the court house at Magnolia, Miss., by Reconstruction Finance Corp., for $50,000.

The sale at public auction was conducted by W. T. Denman as trustee, while RFC was represented by two men from the New Orleans office of the corporation, which was the only bidder.

The sale is subject to approval by the Pike County Chancery Court, scheduled to meet in Magnolia on the second Monday in February.

As noted, the sale was held to satisfy indebtedness to RFC. The firm manufactured rayon tapestry textiles and other rayon materials.

High Point, N. C.—The Harriss & Covington Hosiery Mill, Inc., has been issued a permit for the construction of a boiler room at an estimated cost of about $2,500.

Fries, Va.—The local unit of the Washington Mills Co. was forced to close for at least one day during the recent freeze as a result of a water shortage caused by ice in the river.

Toccoa, Ga.—A few days ago the officials of the Thread Mill of the North Georgia Processing Co. sent a check to the Stephens County Hospital for $250 as a donation. Last year a similar amount was given by the thread firm.

Columbus, Ga.—Scott Russell, executive vice-president of the Bibb Mfg. Co., announces that the directors of the company have authorized the construction of a gymnasium and community center in Bibb City, Columbus, Ga., where a large unit of the company is maintained. He stated that plans were being prepared and that construction work will be inaugurated soon. The community center is to be named in honor of E. T. Comer. Mr. Comer was president of the Bibb Mfg. Co. from 1913 to 1919 and chairman of the board of directors until 1926.

Lynchburg, Va.—Clarence G. Burton, president of Lynchburg Hosiery Mills, has bought the silk weaving mill of Virginia Textile Corp., which has not operated since 1938.

The new owner is said to have no plans for operating the mill. It is understood he expects to resell or rent it. The consideration was not made public.

Included in the sale was vacant property of sufficient size for doubling the capacity of the plant. The mill was built in 1927, and at one time had 140 looms and worked two shifts.

Danville, Va.—The annual statement of the Riverside and Dan River Cotton Mills shows that the corporation converted a net loss of more than a million dollars shown on December 31, 1938, to a net profit of $446,727.15.

The net income is shown to have been $22,524,681.26 against $16,210,642.77 at the end of 1938.

A gain also is noted in the surplus which at the end of December, 1939, was $6,538,357.27 against $6,316,330.12 at the end of 1938.

A drop in the current liabilities was noted at the end of last year, these being shown to be $4,998,329.46 against $5,959,938.31 at the end of 1938. Total current assets are shown to be $10,987,925.99 against $11,642,293.13 a year ago.

Committee D-13 To Meet At Charlotte

On March 13th and 14th, at Charlotte, N. C., Committee D-13, the American Society for Testing Materials' Committee on Textiles, will hold its Spring meeting.

On both days there will be sub-committee meetings and technical papers sessions with an informal banquet planned for the evening of the 13th.

Tentatively the program is as follows:

Wednesday, March 13th—Late morning, sub-committee meetings; early afternoon, sub-committee meetings; late afternoon, technical papers; evening, informal banquet.

Thursday, March 14th—Morning, sub-committee meetings; early afternoon, technical papers; late afternoon, general business session.

Charlotte has been selected as a meeting place due to its proximity to many of the Southern textile industries, universities, and colleges. Committee D-13 wishes to acquaint those interested in textiles with its functioning as a standardizing body, wherein are promulgated methods of test and textile standards mutually acceptable to producer, consumer, and general interests.

This Committee on Textiles believes it can better serve its and the textile industry's best interests by geographically broadening its scope and thus better serve the purposes for which, in 1914, it was founded.

The theme of the meetings will be cotton and rayon, and the technical papers to be presented will be on these subjects.

Announce Expansion Plan for Carter Traveler Co.

Gastonia, N. C.—A. Dewey Carter, president and treasurer of the company, announces that the Carter Traveler Co., widely known Gastonia textile firm, is planning immediately to expand its plant here to double its capacity. The announcement said that plans of the late A. B. Carter, who pioneered in the development of the Carter Traveler Co. and other Carter interests, are being carried out in the expansion.

The contract for the construction of the new unit facilities has been awarded to E. L. Quinn, contractor of this city. Construction is scheduled to get under way immediately.

The only firm manufacturing travelers for the textile trade south of Providence, R. I., the Carter Traveler Co. is one of the units of the Carter interests controlled by the parent company, A. B. Carter, Inc., of whcih A. Dewey Carter is president and treasurer.

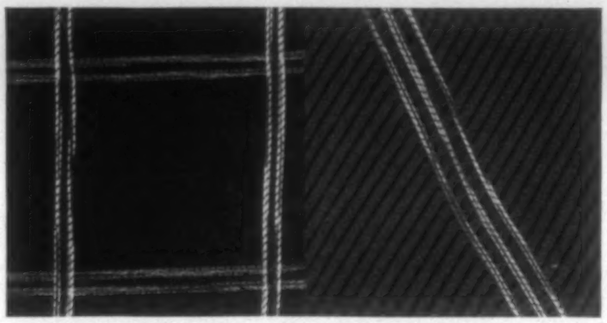
The expansion of the traveler company's plant will cerate employment for an undetermined number of additional skilled workers.

The late Mr. Carter purchased the Boyce Weavers Knotter when it was in its infancy and developed this to an extent where the machines are sold all over the world. This is one of the important textile machinery parts manufactured by the company.

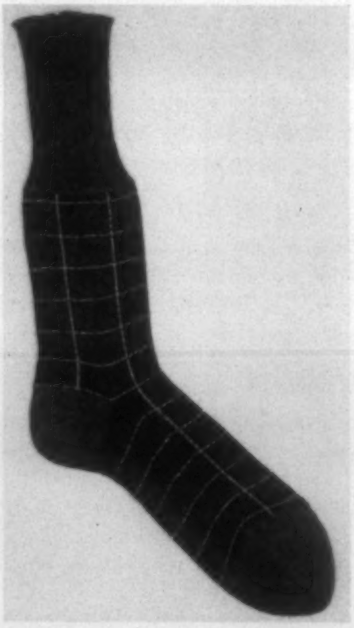
Mr. Carter stated: "The new two-story building will be 100 feet long and approximately 75 feet wide, housing the offices and plant of the Carter Traveler Co. The Mill Devices Co., manufacturing the Boyce Weavers Knotter, will occupy the present building with a new addition to it. The Carter Traveler Co. now manufactures 5,000,000 travelers per week and when the new building and machinery are completed they will manufacture 10,000,000 weekly."

Space Dyed Resist Acetate Introduced By Barnhardt Bros.

"Tryon space dyed resist acetate" yarn has recently been introduced to the weaving trade by Barnhardt Bros., of Charlotte, N. C., manufacturers agents. The accompanying illustration of swatches of fabric shows a few of the effects which may be produced by using the yarn for decorative stripes on a fabric woven in the greige, with an all-rayon ground. The rayon background is then piece dyed in various colors as desired, the Tryon space dyed resist acetate remaining unchanged.



This yarn was introduced to the hosiery trade about a year ago, and the agents state that their sales have been increasing steadily so that they are now moving several thousand pounds monthly to the hosiery trade. They say that these dyed acetate yarns are quite fast to degumming, cross-dyeing, bleaching, stripping, etc., provided these operations are carried out in accordance with formula which they furnish.



Shown above is a sample of half hose with an effect stripe of this space dyed resist acetate.

Freight Rates Cut On Rayon and On Mixed Piece Goods

Important reductions in freight rates on all-rayon and on rayon-and-cotton mixed piece goods become effective as a result of a decision of the Interstate Commerce Commission, it became known at the close of the week. The trucking industry had asked for a suspension of these lower rates, but the request has been denied, according to this information.

The new lower rates mean a reduction of 40% in the freight cost to the shipper, on all-rayons and on mixtures of rayon and cotton. Some of these goods, it is explained, will now move at the same rates as apply to cotton piece goods.

The rates apply to goods coming from Southern producers (mills) to Eastern finishers and also apply to all-rail, rail-water-and-rail, and rail-and-water. Authorities also state that the new rates are lower than corresponding truck rates, and will be the lowest rates ever for the type of goods under consideration.

Textile interests which had made the representations in behalf of the lower freight rates on all-rayons and mixtures of cotton and rayon, were: John V. Hoey, of the Textile Fabrics Association, and also for the Textile Distributors Institute; D. L. Taylor, for Pacific Mills; W. H. Monteith, for Kendall Mills; Henry Welsh, for Sayles Finishing plants; Frank Sutherland, for U. S. Finishing Co.; Dave Levy, for Cohn-Hall-Marx Co.; H. D. Arnold, for Textile Traffic Association; H. M. Fisher, for Joseph Bancroft & Sons Co.; and C. T. Kilgore, for the Cotton Manufacturers' Association of Georgia, the Alabama Cotton Manufacturers' Association and the Georgia-Alabama Textile Traffic Association.

An idea of the substantial reductions resulting from the new freight rates follows:

UNFINISHED RAYON PIECE GOODS

(Rates are in cents per 100 lbs.)

	—All rail—		—Rail-water-rail—	
	Present rates	Proposed rates*	Present rates	Proposed rates*
Greenville, S. C., to—				
Wilmington, Del.	178	107	174	104
Paterson, N. J.	187	112	183	110
Saylesville, R. I.	206	124	202	121
Chadwics, N. Y.	206	124	202	121

UNFINISHED COTTON AND RAYON GOODS

Rayon content in excess of 50% by weight.

(Rates are in cents per 100 lbs.)

	—All rail—		—Rail-water-rail—	
	Present rates	Proposed rates*	Present rates	Proposed rates*
Greenville, S. C., to—				
Wilmington, Del.	189	107	135	104
Paterson, N. J.	146	112	142	110
Saylesville, R. I.	161	124	157	121
Chadwicks, N. Y.	161	124	157	121

Unfinished cotton and rayon goods, the rayon content not in excess of 50% by weight, will be the same as the present rates on unfinished cotton piece goods.

UNFINISHED COTTON AND RAYON GOODS

Rayon content not in excess of 50% by weight.

(Rates are in cents per 100 lbs.)

	—All rail—		—Rail-water-rail—	
	Present rates	Proposed rates*	Present rates	Proposed rates*
Greenville, S. C., to—				
Wilmington, Del.	139	80	135	78
Paterson, N. J.	146	85	142	83
Saylesville, R. I.	161	92	157	90
Chadwicks, N. Y.	161	92	157	90

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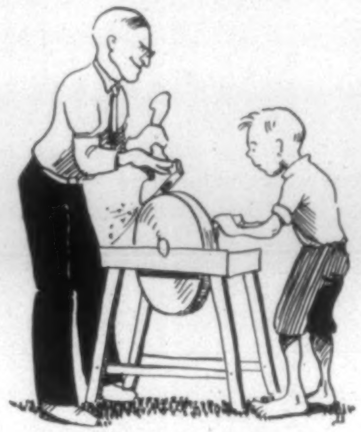
*Effective Feb. 10, 1940.

AN AXE IS GROUND . . . .



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Cotton Goods Markets

New York.—The cotton gray cloth market is beginning to show signs of possible greater activity during the next few weeks, but mills can see little encouragement in the prices at which buyers are willing to even talk. Opinions are not the same on what the possibilities are for the next few weeks' trading, but it is generally conceded that inventories are not large among converters and other users, and that trading will necessarily have to increase soon if users are to avoid dangerously low stocks.

One viewpoint of the present situation is that there is a short position present among users of gray goods that is being counter balanced by the current slow movement among finished goods.

As long as this movement remains restricted by seasonal or other conditions, the time factor works to the advantage of the buyer. The situation, therefore, still simmers down to a question of whether the buyer or the seller has the greater power of endurance. Until there is a definite indication that mill production is being scaled to the seasonally smaller market, the burden of doubt will rest with the seller, this viewpoint concludes.

There has been enough bidding for various carded fancies to disclose that some buyers are seriously short of the weaves they sampled liberally at the beginning of the season. This situation applies to both dress goods and shirtings and is expected to become acute as the season progresses. A number of buyers have sent in orders to commission houses and were surprised to find that they could not obtain the shipments they request. In some instances, mills have sold up their output through April and cannot accommodate buyers with supplies before that time.

A number of converters in New York were apparently of the belief that there were plenty of goods to be had for the asking, despite the fact that mills make a practice of not stocking fancies. With box looms busy on colored goods, a number of mills have been turning down business on gray cloths.

It is fairly certain that delivery rather than price will be the main problem confronting both buyers and sellers in the fancy goods markets over the nevt three months.

Sentiment in rayon gray goods markets is better than in several weeks past. Converters have reported a better demand for various types of finished goods and some went so far as to state that they would be in the market for additional supplies of gray goods soon. There has been some bidding for taffetas and twills but not much of this business was put through.

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Cotton Yarn Markets

Philadelphia.—The cotton yarn market has been definitely slower for the past several weeks from the standpoint of sales, with deliveries holding up to expectations in most cases. As a result of the slack period of sales it has been noted that prices have softened somewhat all along the line, with the greatest weakness being shown in carded yarns.

Combed prices have shown more resistance than carded. Single carded has been holding up better than two-ply while in combed the two-ply has been much steadier all this time than single.

While there are other factors, the chief reason that combed has held up so much better than carded has been that specifications on old contracts have remained large in combed but have declined in carded, making carded spinners need new orders more urgently than combed. One of the largest combed groups reports that for a recent week its shipments reached an all-time record.

Part of the underselling consists of yarn they wish to clear. Part consists of yarn offered by manufacturers who maintain their own spindles, but for the present have a surplus yarn output to dispose of. There are no excessive on-hand stocks of yarn among weavers or knitters, nor is there more than a customary few weeks' supply in the markets. The majority of yarn spinners still are shipping all they make, it is reported.

Chief complaint among distributors is that sales are small, individually, which makes the business more expensive to handle at the same time that customers seek the yarn at lower prices. Some of the yarn mills have lately made special efforts to persuade large customers to cover farther ahead, but thus far without conspicuous success.

The latter, however, seem willing to pay full prices for the filling-in lots they require. Some apparently have little yarn on hand, as they request prompt delivery of sufficient for a week's production, or two weeks'. The spinners have been making prompter shipments and buyers appear to feel they run little risk in operating hand to mouth.

The majority of suppliers are willing to consider offers from bargain-hunters, but fewer are ready to grant concessions.

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New Chrome Color

A new chrome color, "Pontachrome" Orange RL, is announced by E. I. du Pont de Nemours & Co., Wilmington, Del. It possesses very good fastness to light and for that reason will be of primary interest as a shading color to produce mode shades on automotive upholstery, uniform cloth and other fabrics requiring the best possible light fastness, the company says. The color is very fast to carbonizing, a desirable characteristic in a chrome color. Steaming, perspiration, washing and fulling have very little, if any, effect upon the shade, according to the company.

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Also motors, 3 phase, 60 cylinder, 550 volts.

Some of above equipment like new. All in excellent condition.

Bargain prices for quick sales.

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Young man, textile school graduate, with practical mill and traveling experience preferred, to represent reliable manufacturer of weave room supplies in North and South Carolina.

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Modern raw stock dye plant.

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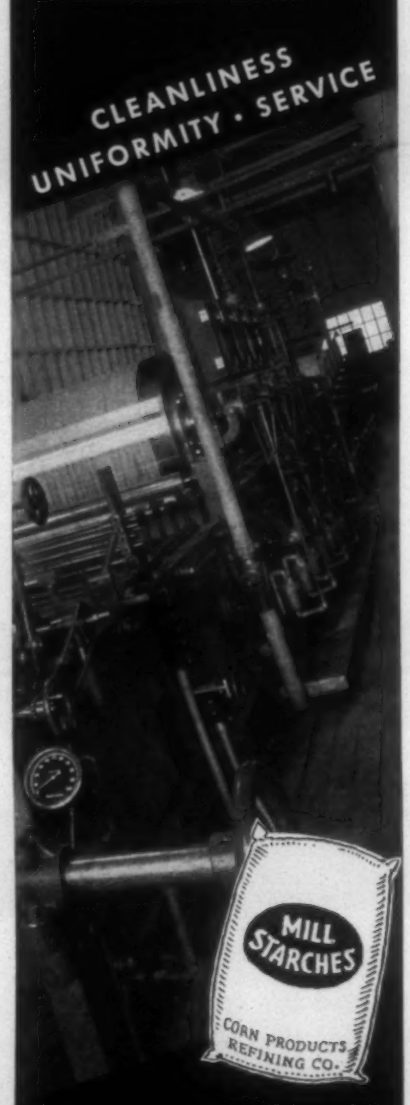

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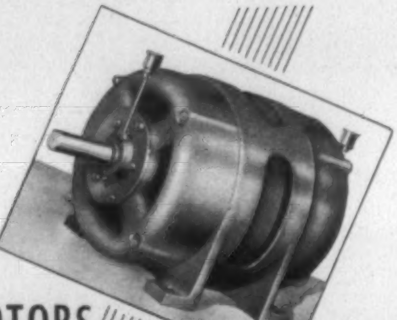

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J. E. SIRRINE & COMPANY
Engineers
Greenville South Carolina

Cotton Export Tax in Egypt

Alexandria, Egypt.—The Egyptian Ministry of Finance has announced a cotton export tax equal to about $1 per 225 pounds would be imposed starting August 15th.

The Ministry said that in the event the United States subsidized exports of American cotton, the Government would reconsider the tax with a view to re-establishing an equilibrium between Egyptian and American cotton prices.

Textile Group Seeking To Abolish Third Shift

Boston, Mass.—A move to have the "third shift" abolished from the textile industry throughout the country was planned recently by a committee of 16 labor and management representatives at a conference with James T. Moriarity, State Commissioner of Labor and Industries.

The group decided to ask the Massachusetts Interstate Compact Commission to urge similar commissions elsewhere to aid in abolishing the "third shift," created in several States to meet restrictions on continuous working hours.

Moriarty assured the group that he would not impose any restrictions on the industry which would prevent business from coming into Massachusetts.

Industrial Rayon Increasing Capacity At Painesville

Industrial Rayon Corp. will increase the present capacity of its Painesville plant by more than 50%, adding in excess of 6,000,000 pounds to its total annual output of yarn for the weaving industry, Hiram S. Rivitz, president, announced in the annual report to stockholders, which was made public recently. This plant, where the continuous spinnng machines applying Industrial's new process have been in continuous operation since December, 1938, has been producing at capacity since August 1, 1939.

Mr. Rivitz stated that the cost of the extension, estimated at $4,000,000, will be met from present cash resources.

"Our engineers are already at work preparing plans and we expect to break ground within six to eight weeks," he stated. "The continuous spinning machines will be furnished by our wholly-owned subsidiary, Rayon Machinery Corp. We hope to be in operation by the spring of 1941."

The report pointed out that the character of production and distribution at the company's Covington, Va., plant has been changed substantially in 1939 as a result of the incentive provided by the Painesville plant in the acquisition of new customers in the weaving industry. In prior years 75% of the production from this plant was shipped to the knitting trade and 25% to miscellaneous users, including some weavers. Now 50% of the Covington output is being shipped to the weaving trade and the other 50% to knitting mills manufacturing hosiery, underwear and outerwear fabrics.

"This gives us a more equitable distribution in line with the trend of the consuming industry of rayon yarn," Mr. Rivitz said.

"The Cleveland plant operation is devoted entirely to the manufacture of yarn, converted into knitted cloth, dyed and finished and sold primarily to the underwear and cutting-up trade throughout the country. A portion of this product finds its way into the outerwear trade, polo shirts, pajamas, etc.

"We are entering the new year under much more favorable conditions than prevailed in the year 1938 and the first half of 1939. Inventories are low, the demand continues to be good, and prices are firm. Orders booked ahead are for 60 days only."

The company reported a profit on operations for the year ended December 31, 1939, of $1,348,923.99 after all charges.

Father and Son Banquet At Proximity

Greensboro, N. C.—Herman Cone, president of the Proximity Mfg. Co., and of the Revolution Mills, presided as toastmaster at the annual father and son banquet in the banquet hall of the Revolution Apartment Building. Brief talks were made by Julius W. Cone, Hill Hunter, vice-president and general manager of the Revolution Mills; Sigmund Sternberger, treasurer; G. P. Stone, superintendent, and L. W. McFarland. The principal address was made by Carl Goerch, of Raleigh, N. C.

Cotton Uses More Vital To South Than War's Outcome

Birmingham, Ala.—Cotton utilization in this country is more important to the South than any probable outcome of the European war, R. J. Cheatham, head of the cotton processing division of the Southern Regional Research Laboratory, told a group of Southern agricultural leaders.

"Today cotton is on a battlefront of its own, and the quantities of cotton going into the hundreds of different domestic uses are constantly changing, as are the uses themselves," he said.

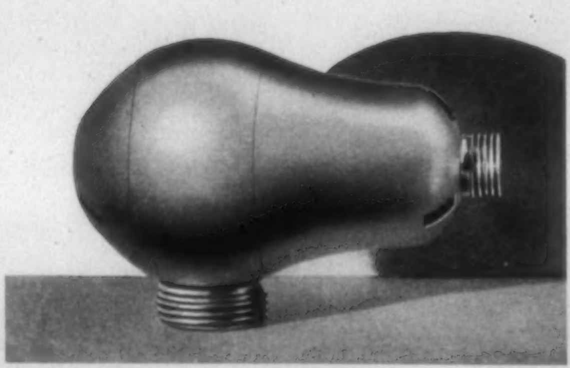
"In years past, decreased consumption of cotton in some channels was at least partially offset by increased consumption in others, but in recent years other textiles and other materials have been substituted for cotton products and made measurable inroads on cotton consumption, particularly jute and paper in industrial uses and rayon in clothing and household goods.

"While the bulk of cotton uses appear to be in no danger at all," Cheatham said, "there are many small and some not so small uses which already have been lost and many others in danger of being lost.

"About 12,000,000 people in the United States derive their principal support from the growing, ginning, handling and manufacturing of cotton. It is the major crop on 1,500,000 farms and the greatest source of cash income of all the plant crops.

"Whether we have good prices or bad, whether we sell large crops or small, depends in the final analysis upon conditions obtaining in the field of cotton utilization, particularly in domestic markets," he said.

Cheatham outlined plans for work at the Southern Regional Research Laboratory now under construction at New Orleans, and said it was up to the entire nation to increase the use of American cotton.



Only the Turbomatic is Diaphragm-atic

The Turbomatic Self-Cleaning Humidifier is the same old Turbo with a diaphragm.

Diaphragm actuation of cleaning mechanism is used because:

Its on or off action is more *positive*.

It calls for *fewer* and less complicated *parts*.

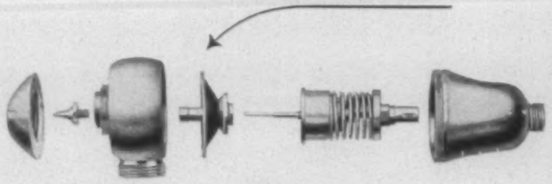
The whole device is *simpler*.

There is *no* likelihood of *sticking*.

And *no leakage* of expensive compressed air.

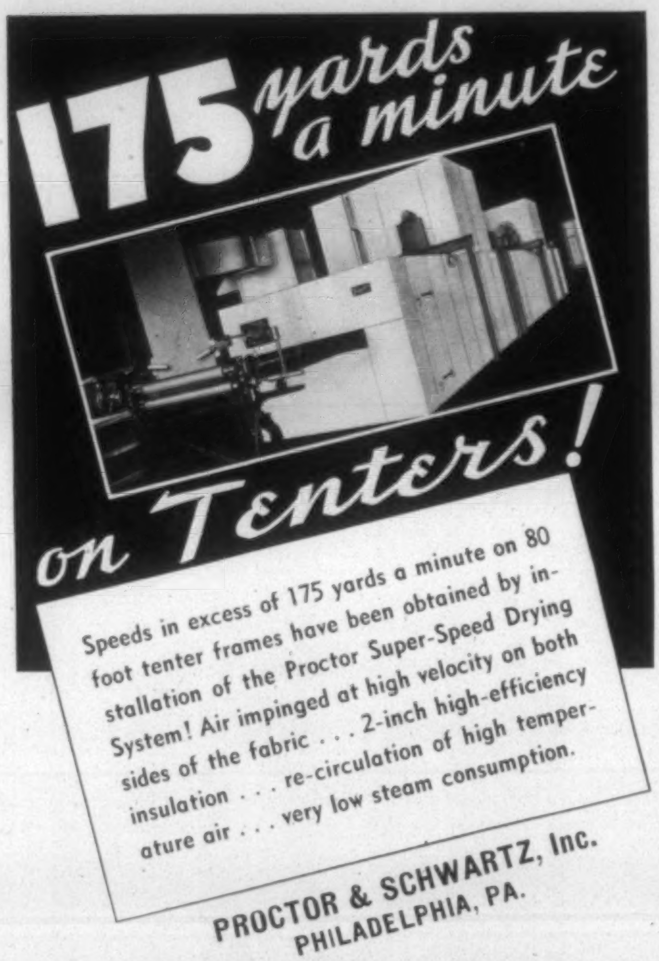
Being positive in action, with fewer parts, it is easier to care for, if after long, hard service it needs attention—as no doubt it may. Being simpler, with no likelihood of sticking or leaking, it is better. Diaphragm construction is what makes it so.

The Parks Turbomatic Self-Cleaning Humidifier is the same old Turbo, atomizing as only a Turbo can . . . but only the Turbomatic is Diaphragm-atic.



Parks-Cramer Company

Fitchburg, Mass. Boston, Mass. Charlotte, N. C.


175 yards a minute on Tenters!

Speeds in excess of 175 yards a minute on 80 foot tenter frames have been obtained by installation of the Proctor Super-Speed Drying System! Air impinged at high velocity on both sides of the fabric . . . 2-inch high-efficiency insulation . . . re-circulation of high temperature air . . . very low steam consumption.

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Right in Principle & Price
The Terrell Machine Co., Inc.
CHARLOTTE, N. C.

BULLETIN
"Want Ads"
Get Quick Results
At Low Cost

Undominated Labor

(*Continued from Page 22*)

independent unions are stronger today than ever before.

N. L. R. B. Offender

The National Labor Relations Board has been a relentless offender in this respect, and independent workers will not forget it. The Labor Board has two standards in dealing with unions; one for nationally affiliated unions and one for independent unions. Let me give you an example. The Labor Board has used its power to destroy independent unions and prevent them from representing their members because the union was guilty of using the bulletin board of the employer for its notices. Ridiculous? Of course it's ridiculous. The Labor Board would not think of putting on an election ballot the name of such a contaminated union. Yet, recently the Board helped, without a qualm, in the certification of a nationally affiliated union in the movie industry whose most active representative was accused of having taken a *loan* of one hundred thousand dollars from an executive of the industry which employed his members, at the time he was said to be breaking a strike for that industry. But an independent union, on the contrary, may not even use the company bulletin board without a "crack-down" from the Labor Board.

This union which the Labor Board could swallow, hundred thousand dollar *loan* and all, is notorious for the high-handed way its officers dominate the members, ride rough-shod over their protests, and bounce the members out if they don't like it. The members have about as much to do with the management of their union and the disposition of their lives as union men as a buck-private in the Russian army has to do with the policy of the Kremlin.

Those of you in my audience who are not union members may say "Well, the law will protect union members from injurious and unjust practices by union officers. Why don't they turn to the law?" I ask you "What law?" There is no law to protect union members from the cruelest injustices by their officers, practices which deprive members of independence, self-respect, and a livelihood itself. They are defenseless, so far as the law is concerned. The leader of the theatrical union just referred to had to run afoul of the U. S. Treasury for income tax evasion. No law protected his members.

Now, the conditions which created an atmosphere or attitude among those who govern us favorable to the kind of unions which dominate their members and shove them about like pawns and unfavorable to Undominated Labor and independent unions was brought about by the political power of the leaders who profited from it. Conditions which will encourage or enforce free, democratic procedures and will relieve union members from corrupt autocratic domination by self-appointed, self-perpetuating officers as well as by anti-social employers will be brought about by the political power of those who are offended by injustices and have suffered from it.

The right of men to "unions of their own choice" is a hollow mockery to many of them until they are effectively guaranteed the further right to the democratic management of those unions for their own benefit, to the end that

(*Continued on Page 46*)

Lunkenheimer "King-Clip" Gate Valve Circular

This new 8-page circular in two colors shows the complete line of Lunkenheimer "King-Clip" Valves with drain channels and bronze thread bushing in bonnet. Valves are available in iron body with bronze trim for steam, oil, gas, air, water and gasoline service and with various allo wtrims for corrosive services.

The Lunkenheimer Co., Cincinnati, Ohio.

In February Textile Research

Another step in the research on the recovery and disposal of textile mill wastes, conducted under the direction of Dr. F. K. Cameron at the University of North Carolina, and financed by the Textile Foundation, is described in the February issue of *Textile Research* under the title, "The Influence of Electrolytes on the Ballo-Electric Effect." It is a progress report of a highly scientific character, but should be found of vital interest by physicists and chemists specializing on this subject.

Of more practical importance to textile technicians and researchers is the index of articles and abstracts published in Vol. IX of this magazine which is a supplement of the February issue. Some idea of the comprehensiveness of this index of technical and research articles published throughout the world during the year covered by Vol. IX, and of its value to those desiring to keep up to date in this connection, may be gained from the fact that more than 750 subjects are indexed, with a cross-index coverage of over 1,000.

Thermometer of Paper

A new chemically-treated paper called "Sure-Temp," which changes from white to deep blue in color when the temperature rises above a certain point, is an inexpensive, convenient replacement for more expensive and damageable pyrometers and steam pressure gauges. The paper has an opaque white coating of a material which melts sharply at a definite temperature, indicating positively by change in color that the surface with whch the paper is in contact has reached that degree of heat. It can be made for controlling many temperature limits.

Designed originally for use in laundries, it is finding wide application wherever efficiency depends upon a limit of temperature. "Sure-Temp" is manufactured by the Nashua Gummed and Coated Paper Co., of Nashua, N. H.

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225 SQ. INCHES LUMINOUS SURFACE
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HYGRADE MIRALUME—HF-200—200-watt unit—complete with four 40-watt, 48" Hygrade Fluorescent lamps—approx. length, 50".

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NEW THOUSANDS BEING INSTALLED EVERY WEEK!

High levels of illumination . . . without harsh glare or shadow . . . several times the light per watt . . . 53% less heat for equal light! MIRALUMES—for every industrial or commercial use—are ready *now.* Corrected for power factor and stroboscopic effect (flicker) . . . starters easily accessible . . . completely engineered by HYGRADE. SEE your local Hygrade jobber . . . or mail coupon.

LOW COST · Hygrade · FULL LIFE · MORE LIGHT

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Hygrade *Fluorescent* Lamps

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Hygrade Sylvania Corp., Salem, Mass.

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TWO INSTRUMENTS IN ONE—Combining a temperature regulator with an indicating thermometer gives a visual check on the performance of the regulator and makes it easy to adjust it for the required operating temperature.

EASY TO INSTALL—Both thermometer and regulator operate from the same thermal system.

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THE POWERS REGULATOR CO., 2745 Greenview Avenue, CHICAGO—231 E. 46th Street, NEW YORK—Offices in 47 Cities. See your phone book.

45 Years **POWERS** of Automatic Temperature and Humidity Control

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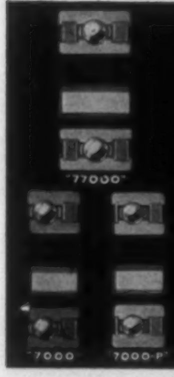

Designed with removable labyrinth felt seal entirely within confines of extra wide inner and outer rings to avoid injury, these "GreaSeal" Precision Bearings, with large grease capacity, assure superior performance. Write for Catalog.

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DARY RING TRAVELERS

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JOHN E. HUMPRIES, Box 843, Greenville, S. C.
JOHN H. O'NEILL, Box 720, Atlanta, Ga.
H. REID LOCKMAN, Box 515, Spartanburg, S. C.

100 Teams Due in Textile Tourney

Greenville, S. C.—More than 100 teams are expected to participate in the Twentieth Annual Southern Textile Basketball tournament to be held here March 6th-9th. Deadline for entering teams is February 15th.

The tournament is the largest textile basketball meet in the world and teams are expected from Alabama, Georgia, Tennessee, North Carolina and South Carolina.

The Southern Textile Athletic Association plans an elaborate celebration here in connection with the tournament.

New Folder Shows How To Strap

An interesting and informative folder on the proper reinforcement of all types of shipping packs has just been published by Acme Steel Co., Chicago. Identified as Form Ad 14, this new release contains 59 sketches showing how various products can be effectively and economically strapped against pilferage and damage. The most popular of the 429 different Acme Ssteelstrap tools and accessories are pictured and reproductions of eleven photographs showing this equipment in use also adds to the value of the folder. The trend toward obtaining full advertising value from shipments is evident from the space given to trademarked seals and also to printed strapping. The name of the shipper, slogan or trademark can be faithfully reproduced on both black and galvanized finishes of Acme Steelstrap. The new folder is concise and tells a complete strapping story in four well illustrated pages. Copies are available on request.

Textile School Opens At Kannapolis

Kannapolis, N. C.—The annual Textile school conducted jointly by the Y. M. C. A. and Cannon Mills Co., for Cannon employees, started classes February 13th.

Second shift men study at 10 A. M. at the Y. M. C. A. several days every week, and first and third shift employees hold classes at Cannon High School at 7 P. M. on the same days. About 20 classes will be conducted during the term.

Urge United Action By New England Mills At Rail Rate Hearing

Providence, R. I.—United action by New England textile interests is sought by the Textile Traffic Association of Providence in opposing any change in freight rates affecting Southern textiles.

Southern textile mills plan to seek a reduction in Southern freight rates at a hearing which opens on February 20th before the Interstate Commerce Commission in Washington. The Traffic Association, representing a majority of the cotton piece goods finishing plants in the Northeastern States, claims that if the Southern contention is upheld "New England shippers of finished cotton piece goods will have their freight costs increased as much as 17%. At the same time the Southern shippers will have their freight rates substantially reduced."

H. D. Arnold, manager of the Traffic Association, declared that following hearings some years ago the I. C. C. "established rates within the North and South based on evidence submitted which proved that it cost railroads more to transport freight in the South than in the North and that, consequently, the Southern railroads were entitled to a higher basis on which rates should be established than was true in the North."

Mr. Arnold said his group has been assured of the support of the R. I. Textile Association and other groups of textile manufacturers.

Two Men Killed in Mill Blast

Atlanta, Ga.—Two men were killed in an explosion which recently occurred at the Fulton Bag & Cotton Mills. They were working alone in the room in which the explosion occurred and the cause remains undetermined.

Charlotte Leather Belting Co. Adds Apron and Roll Department

The Charlotte Leather Belting Co. has established a modern textile apron and roll covering shop in their plant and expect to have the new department in full operation by the latter part of February, it was announced by Fred R. Cochrane, manager of the company.

The apron and roll covering shop will be in charge of Hugh H. White, who has had wide experience in this work, having managed the roller shop of the Appleton Mfg. Co., of Anderson, S. C., for 17 years.

To insure quality products and workmanship, the very latest type of equipment has been installed at a cost of approximately $9,000. Only the best grades of calf and sheepskin leathers will be used for roll covering and the highest quality of chrome and bark tanned leather for the aprons, Mr. Cochrane stated.

The Charlotte Leather Belting Co. has manufactured industrial leathers for almost every purpose since 1894 and the establishment of the new shop is considered by the management as a logical step in the continued expansion of the business.

Electric Rates in the Carolinas

Washington, D. C.—The people of the Carolinas are paying considerably below the nation's average for electricity and power for homes and industries, it was revealed by the Federal Power Commission in a report on Average Electric Bills for 1939.

This applies to use of electricity of all kinds and in all quantities. For example, the average monthly light bill throughout the United States was found to be $1.53 for 25 K. W. H. residential service, while the rate in North Carolina is $1.50 and in South Carolina, $1.42.

The average bill for 100 K. W. H. is $4.22, residential service, while the rate in North Carolina is $4.06 and in South Carolina, $3.92.

The average commercial rate for 375 K. W. H. is $17.18, whereas the North Carolina rate is $16.97, and the South Carolina rate $17.07, just below the average.

On 750 K. W. H. North Carolina industries are paying an average of $27.87, the commission found, while in South Carolina the rate is $31.24, as against the nation's average of $33.09, the highest being in Rhode Island, at $46.88.

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Diamond Finish NS
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Oblique-groove Eadie Ring
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Putting ADDED PRODUCTION into your mill picture—

Production increases of 10% to 90% are the rule after installing MODERN types of rings in spinning and twister rooms. Eadie rings for silk, wool and cotton twisting give amazing increases due to super-smooth operation at much higher rates. Our new style polish on spinning rings permits 10% to 15% greater production from your present spindles where new rings are desirable. For quick, sure production gains, look to your rings — and for the maximum increase through the most modern rings, look to DIAMOND FINISH!

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DIAMOND FINISH
Makers of Spinning and Twister Rings since 1873

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Manufacturers of Bars, Bushings and all kinds of Bronze Castings for Textile Machinery.

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For Fast Action
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Textile Bulletin
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Laurel

EMULSIONS AND SOFTENERS FOR KNITTING YARNS

- ★ *Better Quality*
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LET US tell you about Laurel Emulsions and Softeners and how their application gives your yarns better knitting qualities . . . better softening, lubricating, conditioning, twist setting of processed or grey, carded or combed knitting yarns. Backed by over 15 years' experience in the treatment of cotton yarns for leading processors and spinners.

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Wm. H. Bertolet's Sons Established 1909
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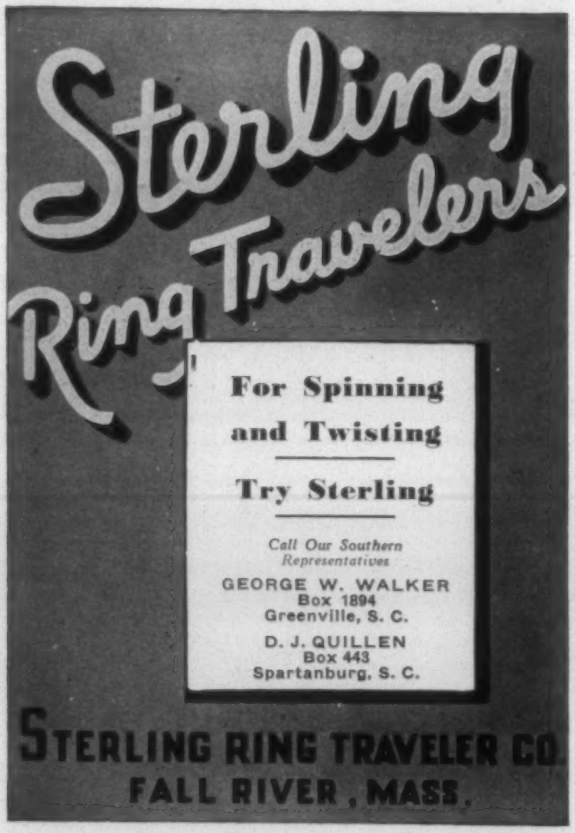
Warehouses: Paterson, N. J. Chattanooga, Tenn. Charlotte, N. C.



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STERLING RING TRAVELER CO.
FALL RIVER, MASS.

Undominated Labor

(Continued from Page 42)

all American workers may approach the independent union ideal of truly "Undominated Labor."

The good name of the union movement and its standing before public opinion will be vastly improved when all unions are democratically managed by the membership without fear of the leaders, when the leaders serve the members and not the other way around. Rackets never exist in unions controlled and managed by the members. Rackets flourish only in unions with self-imposed officers, unions in which the members dare not speak out. Independent unions have never been racket-ridden. The members would promptly kick out racketeering officers. And the sooner codes of conduct and standards of responsibility to the membership are set up for all unions, the sooner all unions will have the acceptance and the respect and the place in our nation's affairs to which their honest purposes entitle them.

Independent unions believe in and shall use all the force at their command to preserve the right to organize and bargain collectively with their employer, as well as the preservation of the right to strike or the right to work. They believe the eight million of the working men and women in the country that are members of the two quarreling international unions should have the right to belong to those unions if that be their free choice; and that the thirty-five million independent working men and women not members of the international unions, by the same token, should be permitted to exercise the same rights and remain independent, if that is their choice, without coercion and threats by union leaders or domination by biased governmental agencies. The aim of the independent union is to bring about industrial peace, for the real and final sufferer in industrial warfare is not the leader who pockets the dues derived from the working man, but the individual worker and his family. The independent unions are constantly striving for a better, fuller understanding between capital and labor, for to them it seems inconceivable that these two great forces composed of men and in the age of enlightened and advanced civilization would permit intervening forces whether of their own inception or by the organization of outside influence to create jealousies, hatreds and suspicion, for the driving of a wedge between them to the destruction of harmon any co-operation.

EDITOR'S NOTE (not part of address).—Information regarding the National Council of Independent Unions may be had by writing the National Council of Independent Unions, 1012 Harter Bank Bldg., Canton, Ohio.

Textile Worker Held for Injuring Another

Burlington, N. C.—Jack Holt, textile employee, has been arrested on charges of injuring Joe Tyson, a fellow worker, during a strike in Plants A and B of Burlington Dyeing & Finishing Co.

Holt is charged with throwing a rock through the windshield of Tyson's automobile on November 20th and causing the injury which resulted in Tyson's losing his left eye. He was placed in jail in Graham in default of $5,000 bond required for appearance at a preliminary hearing.

Important Chemical Developments in the Textile Industry

(*Continued on Page 19*)

of their normal negative charge. Under these conditions, the rubber particles steadily migrate towards the wool fibers, like dye particles in an acid dye bath. Exhaustion of the latex solution is almost complete, because the affinity of the particles has been changed. It is further possible to add vulcanizing agents and in this way vulcanized rubber particles are produced without precipitation of rubber. It has been found that tensile strength of wool is increased several times by this rubberizing treatment. The most satisfactory results are obtained with a deposit of 7 to 10% of rubber.

In this connection a new development for wool carpets might be of interest. The National Automotive Fibers, Inc., in Oakland, Calif., has developed a rubber and wool carpet which has wool fibers in the pile embedded in foam rubber latex base. This is supposed to cost less than conventional broad loom carpets. The softness of the carpet can be regulated by varying the thickness of the rubber base. The Mohawk Cotton Mills have acquired the license to manufacture and sell this carpet.

Cation Active Compounds

Let us apply ionization in connection with *vegetable* fibers. When an inorganic or an organic compound is dissolved in water, it usually dissociates into so-called ions which are electrically charged particles. These particles are charged positively and negatively and are in balance. In other words, their number is the same. The particles carrying a positive electrical charge are called cations, the ones with a negative charge are called anions. Now, most of the older and even many of the later types of textile assistants are what is called "anion active." That means that the really important part of the molecule—in most cases the "fatty" part is not attracted to the fiber which is charged negative in water. In other words, the assistant has no affinity for the fiber. So the thing to do would be to make a compound whose important or effective part of the molecule is positively charged and which then would be attracted to the fiber. This has been done in the case of the so-called "cation active compounds" about which we have heard so much lately. These new materials are mostly derivatives of nitrogen bases, built around substituted ammonium hydroxyde (quaternary ammonium compounds) or the cyclic or heterocyclic nitrogen compounds, such as pyridin. Already quite a number of these materials are on the market. Since they are strongly attracted to the fiber, they create a rather strong bond which is physical as well as chemical and produce a soft finish which withstands several washings and in some cases organic solvents, such as are used in dry cleaning. Some of them combine with dyestuffs and make the dyeing faster to washing and water. So it can be seen that we are able by controlling the electric charge in the system, fiber-water-textile assistant, to determine the affinity of one part to the other. The bond between fiber and these new finishing materials is, as mentioned before, only physicochemical, although it is more intimate than that of other compounds. Yet it is only about in between a fiber coating proposition, such as most finishing or waterproofing

(*Continued on Page 50*)

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PIONEERS IN
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Practical Card Men

TO HELP SOLVE
YOUR CARD CLOTHING
PROBLEMS

The founders of this business were practical card men and our sales and service staff has been liberally supplied with men of the same type ever since.

Thus our representatives are prepared not only to sell you card clothing, but also to help you to apply and use it properly and to select the right type for the purpose. They "know what you're talking about" when you tell them your problem.

We were one of the earliest exponents of this principle and lead the field in adhering to it. Call on us to assist you in your card room.

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3 FACTORIES
Fall River, Worcester, Philadelphia

6 REPAIR SHOPS
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7 DISTRIBUTING POINTS
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"ATLAS BRAND"
EMERY FILLETING
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Stocks in all the leading Mill Centres
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ATLAS
The Standard Card-Grinding Medium
GUARANTEED "A" QUALITY
THE ONLY QUALITY WE MAKE
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The DRONSFIELD CARD-GRINDERS
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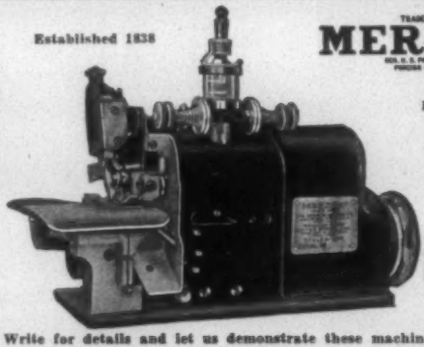

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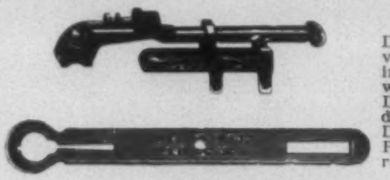

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Send for samples
DIXON LUBRICATING SADDLE CO.
Bristol, R. I.

The Technologist and Textile Merchandising

(*Continued from Page 18*)

considerations. The operation of grey mills and their merchandising is directly influenced by these facts.

In order to maintain efficient and profitable operations, rayon weaving mills find it necessary to anticipate converters' fabric needs, in that they invariably postpone grey goods purchases to the last possible moment. If mills were to await actual converting demand before weaving, they could not function economically. In effect, the grey producer undertakes a part of the risk which in the early development of the rayon industry was entirely borne by converters, and seemingly this has proved a profitable practice.

Conversion Procedures

The finishing of cottons allows for considerable range for quality variations and, too, covers an extremely broad field. Therefore, substantial opportunity for original ideas and treatments are present. Thus, the individual converter finds it possible to contribute some uniqueness in his presentations—frequently the degree of his success is governed thereby. Cotton converters are of many types, ranging from the mass yardage operators who work close to machinery, to those who aim for smaller individual sales and cater to trade which is needful of original, carefully produced but less widely spread products. There are innumerable types whose operations fall in intermediate stages between these two extremes.

Conversion procedures are highly individualized; there are almost as many methods as there are firms. It might be said that each is a law unto itself. As between so-called downtown and uptown rayon converters, there has been a marked difference in underlying approach, but the paths of both of these groups is gradually being altered, each is borrowing some techniques from the other. While the pace is made uptown, the downtown group is playing an ever-increasing role.

In the merchandising of spun rayons and blends, the practices of both the rayon and the cotton groups are pursued in something of an overlapping fashion. The stronger influence, however, is that of the rayon procedures. The work of a technologist in this field makes an impressive record. Here the speed of growth is directly traceable to technical skill. The quick and effective conversion of cotton machinery to spun rayon manufacture has been a noteworthy accomplishment. The art of blending has opened new vistas which seem to offer almost limitless possibilities.

In that cottons require considerably longer time for processing than do rayons, it is necessary for converters to anticipate a larger percentage of their requirements. If they do not, they fail to service their trade properly, and this is essential to maintained success. It is an art to accomplish this end, and yet not allow inventories to become unwieldy or to permit turnover to drop to unsatisfactory ratios. Hundreds of grey cotton mills are sources of supply—combed and carded mills, print cloth and sheeting mills, as well as those producing industrial and work clothing materials. The products of these plants are less subject to rapid style changes than those of rayon mills. Therefore, inventory risks as affected by this consideration are more limited. There is need and room for important contributions in fabric development in most of these cotton groups, and the pace of change could be speed up with profit. This, then, is another of the fields in which you can work profitably.

The Industry's "Dictators"

It is important to keep well in mind that unit retail prices have become the tyrants of the textile industry. They are the dictators whose demands are inflexible—the dollar, the $2.98 or the $5.95 garment, the 29, 39 and 79 cents a yard price are typical of the levels to which all textile operations are attuned. Splendid fabrics and values which fall between these prices are usually sacrificed, regardless of merit. Therefore, it is necessary that fabric development be conducted with an eye to the deadline limitations of the retail distributor.

While this situation is irksome and works a considerable hardship, it must be said in all fairness that it has accounted for enormous expansion of textile consumption and has stimulated the development and growth of a low cost and high volume needle industry, and of the modern chain store and mail order institution.

On the Firing Line

You technologists are the students, the painstaking workers behind the scenes. On the firing lines are the interpreters and distributors of your efforts. You need them, and they need you. Your imaginative processes cannot operate in a vacuum; constant contact of a reciprocal type is essential to obtain best results. Our experience has taught us that our sales staff has been able to stimulate and amplify our designing staff, and vice versa. The proper launching of a new fabric is an art which takes years to acquire. All too frequently sound fabrics lose out because of unfortunate presentation. Placing the right fabric with the wrong house works a hardship on both mill and converter, and the right house is not necessarily the largest house. A sound idea is sometimes submerged when lines are too big and salesmen are overburdened. A small organization, if it has commitments which make it impossible to do justice to a new fabric thought, may obtain equally unsatisfactory results. Every fabric has a place or places in which it can best prosper. The merchandising organization must judge this and to do this they must know the abilities of each converting organization and the position of each in the field for which the cloth is suited. To convince such a desirable user that your article has merit and that it is worthy of featuring, is to perform a real service. It calls for confidence born of ability, knowledge and a proven performance record. It is the highest form of salesmanship. Your best fabric efforts can well be nullified if they are not translated intelligently.

Opportunities in the textile industry are enormous. The scope for creative thinking and executive vision is almost limitless, and in this, no monopoly is attainable. The possibilities should encourage your best efforts. All the job needs is the doing—which is to say, the industry will perform as well as its man-power permits.

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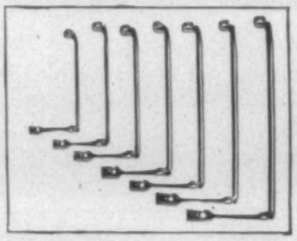

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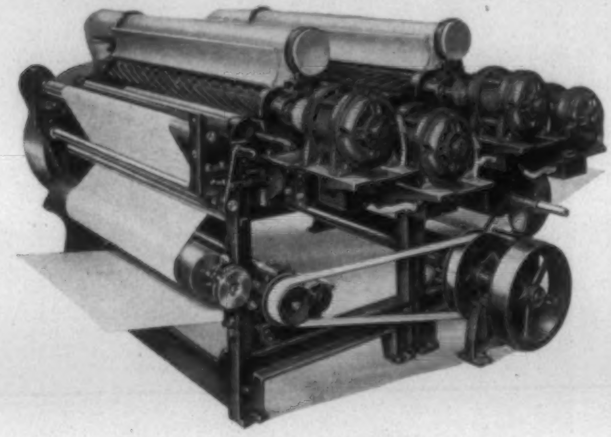

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Chicago

*Xynomines are produced under U. S. Patent 1918373. Other patents pending.

Important Chemical Developments in the Textile Industry

(*Continued from Page 47*)

processes represent and a real new chemical compound with the fiber material itself. However, there is a development which goes a great step towards that "ideal" process, and that is not merely to deposit something on the fiber, to coat the fiber—but to effect a chemical reaction between the fiber and the finishing or waterproofing compound. This new development is just a step removed from the quaternary ammonium compounds we dealt with a moment ago. I am referring to the waterproofing process with Zelan or Zeland as it is called in England where it originated. It reacts with the cellulose molecule when heated and makes the fiber "hydrophobe," which means the fiber is not wetted by water any more. Wetting of cellulose is a function of the swelling properties of cellulose, which in turn is caused by OH or NH_2 groups of the cellulose molecule. If these groups are blocked by fatty groups then the action of water that is swelling and then wetting cannot take place any more. This was done first by making an oxymethylether of cellulose with solutions of a fatty compound in pyridin. This process did not work out in practice since pyridin was used as solvent. If pyridin, however, is used as a component by changing the same oxymethylether into a quaternary compound with pyridin, a water soluble compound is obtained with which the cotton is impregnated. The material is then carefully dried and after it is completely dry it is baked for a short time at about 120° C. The material is then hydrophobe, that is permanently waterproof—fast to washing and dry cleaning. It is extremely interesting from the chemist's point of view how that one simple observation, namely that, by drying this compound and subsequent baking pyridine is made a component rather than used as a solvent—a process which was first practically useless was made one of the major achievements in textiles. The value of this process is further increased by the fact that it imparts a very nice soft and full hand to the fabrics.

This process resembles somewhat the well known crease resisting process with formaldehyde condensates. As a matter of fact both processes can be combined. In order to make a fabric waterproof and creaseproof in one operatiton a derivative of urea containing a fatty alcohol radical is employed—stearyl urea. This is condensed with formaldehyde and pyridin in presence of HC^1. Fabrics are treated with this condensate (stearylureidomethyl pyridinium chloride), which is water soluble, then squeezed, dried and baked at 110° C. for 10 minutes. The effect is to make the material water repellent, crease-proof with a soft full finish, fast to washing and dry cleaning in one operation.

Era of Converted Fibers

We are still living in the era of converted fibers, that is to say, we are still at work improving their properties to make them better adapted for our needs. It would take a long paper to cover all the developments which have taken place in recent years, but it might be in order to just get a birds-eye view of the more fundamental ones. It will be simpler to keep these developments before us if we realize that there is little we can do to change the primary properties of the textile fibers, even of the so-called man-made fibers. After all, we cannot change the materials out of which these fibers are made, except in the case of cellulose esters such as acetate. We can, of course, make some superficial modifications, but no fundamental changes. The properties which we can and do modify are the secondary properties and it is here that many developments have taken place. For instance, the property of resilience, the hand of a fabric, its resistance to creasing and to stresses during wear are a direct function of resilience. The absence of this property in cotton and the rayons makes these fibers so different from wool. This can be improved by treatments with resins. These resins can also be incorporated inside of the fiber during the manufacturing process. Cellulose acetates have a certain inherent resilience which makes them suitable for wool-like materials. Hygroscopicity is another important secondary property. All natural fibers are hygroscopic, so are viscose and cuprammonium rayon. Acetate is much less hygroscopic. We can modify this property in case of all the rayons by suitable treatments. When we have cross sectional shape. This is a property which we cannot change in natural fibers but we can control that in the man-made fibers. That is the reason why we are able to make fibers for many special purposes such as carpet yarns. We have a very simple way of changing one of the primary properties of fibers—strange as it may sound—that is, we can change the form of rayons. The form of a fiber is the proportion of its diameter to its length, in other words, its staple length. Since we can spin rayons as fine and even finer than natural fibers and since we can cut them to any length, we have it in our hands to change this property at will. That is the way we get staple fiber and you all know the tremendous strides this latest modification of converted fibers has made. With this product we can do all the things we are doing with the long filament rayons and some more. For instance, we can impart to it crimp, a property which in conjunction with others is very important indeed and only possessed by fine wool fibers. Many of the staple fibers are now available with a so-called permanent crimp. However, this question of crimp still needs much clarification, that is to say, how permanent is it in the various staple fibers, how much of a crimp is desirable and how do these fibers behave in the spinning and other processes and in the finished cloth.

Casein Fibers

There has been another interesting innovation in the field of converted or man-made fibers in recent years and that is the utilization of protein for making fibers related to wool. This is a development which rounds out the picture of man-made fibers which until lately was confined to the field of vegetable fibers. This is really nothing fundamentally new, for it was attempted 35 years ago in Germany although not perfected commercially. An Italian chemist, Feretti, revived this process a few years ago and developed it into a commercially feasible process. This development, very much like the phenomenal rise in the use of staple fiber, was compelled in a large measure by the urgent need of substitutes for natural fibers in the so-called totalitarian countries. Just the same necessity has helped the development along, which otherwise would have been neglected. Fairly large quantities of these protein fibers are being made in Italy and Germany from casein, that is from skim milk. The interest in these protein fibers, however, is by no means confined to these countries. We are interested in this subject right here in this country. For instance, the Department of Agriculture wants to help the farmer by finding new uses for his products, also the big dairy companies are interested in the same subject. Considerable research has been done on casein fiber and fiber has been made on a semi-plant scale by at least three companies. It has been announced some time ago that the National Dairy Products Corporation is equipping a plant in Rhode Island. Three patents have been granted on casein fiber to two chemists of the Department of Agriculture, which are dedicated "to the free

(*Continued on Page 54*)

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Spinning Mills' December Operations 100.7%

Washington, D. C.—The Census Bureau reported that the cotton spinning industry operated during December at 100.7 per cent of capacity, on a two-shift, 80-hour week basis compared with 101.3 per cent during November last, and 82.3 per cent during December a year ago.

Spinning spindles in place December 31st totaled 24,943,302, of which 22,777,936 were active at some time during the month, compared with 24,973,218 and 22,774,170 for November last, and 25,994,676 and 22,432,648 for December a year ago.

Active spindle hours for December totaled 8,039,846,028, or an average of 322 hours per spindle in place, compared with 8,803,076,810 and 353 for November last, and 7,184,750,000 and 277 for December a year ago.

Spinning spindles in place December 31st included: in cotton-growing States, 18,208,838, of which 17,101,378 were active at some time during the month, compared with 18,199,718 and 17,099,448 for November last, and 18,665,954 and 17,063,784 for December a year ago; and in New England States, 5,967,168, of which 5,044,370 were active, compared with 6,006,204 and 5,052,284 for November last, and 6,524,662 and 4,763,326 for December a year ago.

Active spindle hours included: in cotton-growing States, 6,248,663,533, or an average of 343 hours per spindle in place, compared with 6,867,193,914 and 377 for November last, and 5,590,065,000 and 300 for December a year ago; and in New England States, 1,620,784,365 or an average of 272, compared with 1,756,840,867 and 293 for November last and 1,450,158,000 and 222 for December a year ago.

Active spindle hours and the average per spindle in place for December, by States, follow:

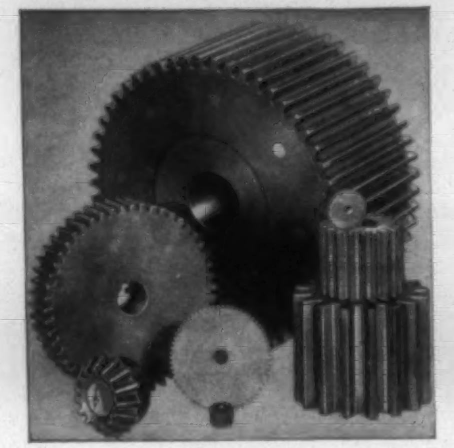
Alabama, 643,342,374 and 353; Connecticut, 142,119,743 and 268; Georgia, 1,125,501,860 and 349; Maine, 215,988,972 and 315; Massachusetts, 879,916,354 and 263; Mississippi, 56,049,502 and 352; New Hempshire, 95,892,292 and 285; New York, 83,517,980 and 249.

North Carolina, 1,920,251,813 and 330; Rhode Island, 262,868,404 and 270; South Carolina, 2,037,897,258 and 366; Tennessee, 205,248,930 and 373; Texas, 78,621,955 and 331; Virginia, 142,827,710 and 223; all other States, 149,800,882 and 208.

Installation of Woolen Yarn Machinery Completed At N. C. Textile School

Edward Flynn, machinery erector of Davis & Furber Machine Co., has returned to North Andover after a month spent in Raleigh, N .C., where he was engaged in installing a complete woolen picking, carding, spinning and warp dressing unit in the North Carolina Textile School. This is one of the finest modern installations of woolen machinery in the world, and Mr. Flynn is enthusiastic about the splendid co-operation he received from Dean Thomas Nelson and the entire faculty. The new equipment is housed in a new building erected specially for textile machinery and textile instruction.

The equipment that has been set in place and now is ready for operation comprises preparatory machinery, including an automatic box duster, a burr picker, and a mixing picker with automatic feed and oil sprayer for



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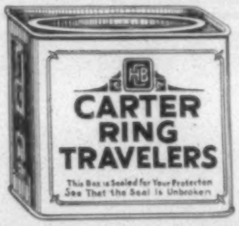
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blending and opening stock ready for carding. The carding equipment is a 3-cylinder American T-slot card with every modern accessory, including Bramwell automatic feed, broad-band center-draw intermediate card feed, and a four-bank type condenser. Roping is delivered to a Simplex woolen spinning frame, where it is spun into various sizes and types of yarn, for both weaving and knitting. Card room accessories include Marathon card clothing, a Flynn card clothing tension machine which controls tension in winding card clothing within limits of 10 pounds, and complete card grinding equipment, including traverse and roll grinders. A small sample card is an important part of the equipment and prepares small samples of blends of different fiber qualities and colors, in the same manner as this is done in the most modern mills.

Other machinery in the new woolen department includes latest high speed automatic jack spooler with electric eye stop motion, and complete warp dressing equipment with pinless attachment on the reel.

Saco-Lowell Nets $335,674 in Year

Boston, Mass.—Saco-Lowell Shops reports a net profit of $335,674, after depreciation, interest and taxes, for the year ended November 30, 1939. This compares with a net of $56,938 for the previous year.

Sales in 1939, according to David F. Edwards, president, were about 24 per cent over the previous year's, but 32 per cent under the 1937 volume. Although rayon has become an important textile fibre, Mr. Edwards explains to stockholders, it does not seem to greatly reduce cotton consumption. Final quarter of the fiscal year ended November 30th last was the best for Saco-Lowell and about half the profit was made in that period.

Current assets, as of November 30, 1939, were $4,148,977, including cash of $1,266,966. Current liabilities were $696,947, leaving net working capital of $3,452,030.

Cotton Usage in December Totals 652,695 Bales

Cotton consumed during December, 1939, totaled 652,695 bales compared with 565,627 bales in the same month in 1938, according to preliminary statistics made public by the Census Bureau, Department of Commerce. Consumption fo rthe five months ended December 31, 1939, totaled 3,311,702 bales compared with 2,798,708 bales in the five months ending December 31, 1938.

Cotton on hand December 31st in consuming establishments totaled 1,859,664 bales, compared with 1,700,877 bales on December 31, 1938, and in public storage and at compresses for the two periods there was a total of 14,581,642 bales and 15,339,729 bales, respectively.

Cotton export in December totaled 807,000 bales, valued at $43,303,000, compared with 584,000 bales, valued at $30,288,000, in November, and 368,000 bales, valued at $18,741,000, in December, 1938, according to the Department of Commerce.

Total exports for the five months of the current cotton season (August to December) aggregated 3,143,000 bales, valued at $166,848,000, compared with 1,902,000 bales, valued at $97,813,000, for the corresponding five months of 1938, an increase of 1,241,000 bales, or 65.2 per cent, in quantity, and $69,035,000, or 70.6 per cent, in value.

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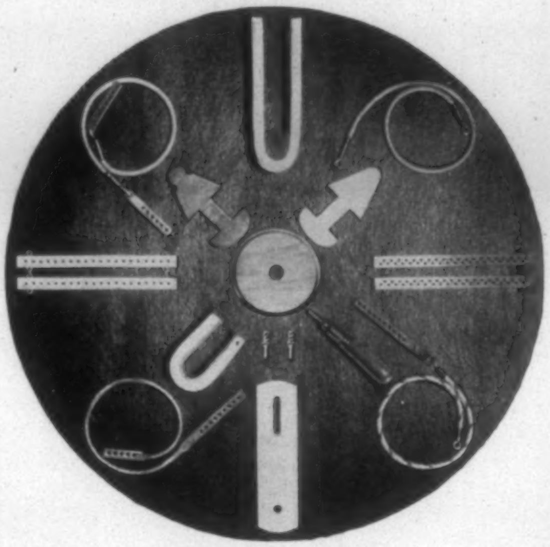

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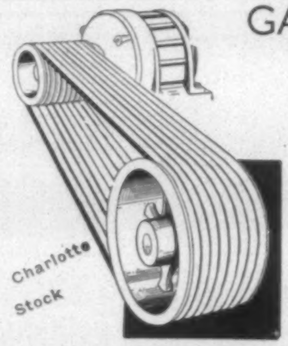

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Important Chemical Developments in the Textile Industry

(*Continued from Page 51*)

use of the people of the United States." The first patent claims a fiber comprising casein, salts of casein and fat acids, also a fiber with the aluminum salt of casein as a component. The difference between this patent and Feretti's patent is that no specifically prepared casein is required. The second patent is interesting, because it covers the use of skim milk for direct manufacture of the fiber, without first separating the casein. The third patent covers the use of phosphoric acid and phosphates in the precipitating bath. I think it is fair to say, that in this country the casein fiber in its present state would not be accepted as being suitable as a textile fiber. Most important of all, it has a comparatively low tensile strength, especially when wet. Its strength is about half that of wool and its elongation only about one-third. Besides, it has many other shortcomings. But, most of us remember that 10 or 20 years ago rayon was not the fiber which it is today and doubtless casein fiber will be improved in the near future. It might be interesting to recall that a sheep produces about 7½ pounds of wool a year, while a cow produces enough milk a year to make about 100 pounds of casein fiber. There is enough skim milk available in this country for a potential production of one billion pounds of casein fiber a year. Besides milk, there are other sources of protein studied, especially the soy bean. This protein, of course, is of a somewhat different nature than milk protein because soy bean protein is of vegetable origin. Indications are that this development promises some very interesting results and it should not be overlooked or regarded too lightly by any means.

Just one word about another new (or old) fiber—glass fiber. While this fiber has not the properties necessary for a textile fiber it is worthy of note here because its use as a fiber for industrial uses is widening considerably lately.

I am now coming to the latest and by far the most important and revolutionary development of all, revolutionary not because it is merely a new invention—it is much more than that. It is an entirely new approach to the question of textile fibers. It goes deeper than to just making another fiber of some natural raw material. It means the production of a new material, not found in nature, with which to make textile fibers. This material has all the primary and secondary properties that make it suitable for use as a textile fiber. Two of these new fibers have made their appearance on the market in limited quantities—"Du Pont's Nylon" and "Union Carbide's Vinyon." Both will be in volume production next year. They belong in the class of synthetic resins and can be synthesized from simple organic compounds which are available in unlimited quantities and relatively cheap. Vinyon belongs to the group of so-called vinyl-chloride-vinyl acetate co-polymers. Its low melting point and poor affinity to available textile dyes, however, limits its uses for the time being. The other product, Nylon, is made by combining a dibasic acid with a diamine and subsequent polymerization of the resulting amide. The fibers made from this raw material are superior to natural fibers in many respects, they are very strong both in the dry or in the wet state, have a very high elasticity (several times that of silk), are not affected by moisture or heat and have a good affinity for dyes. It is no over-statement to say that this is the greatest textile development of our time because it is destined to usher in a new era in textiles. It means that we are beginning to really become independent of nature. We do not have to take what nature gives us and use these raw materials to make products for our use. Now we are making our own raw materials from the same building blocks that nature is using, but we arrange these building blocks to suit our needs and wants. We will be able to incorporate most qualities into these raw materials and do not have to resort to a great many processes to make them suitable for whatever we want to use them. These changes in raw materials will not only alter the chemical processes, they will also alter the fabrication of textiles. They will affect tremendously your preparatory processes such as carding, combing, spinning and weaving, perhaps eliminate most of these processes to a large degree. The textiles of the future might be made by just combining sheets of slightly carded fibers without twisting, spinning or weaving operations with the resulting fabric resembling something between paper and felt, but stronger than either.

New Peak Established in 1939 for Textile Fiber Consumption

United States consumption of the five major textiles (cotton, rayon, wool, silk and linen) amounted to 4,558,300,000 pounds in 1939, an increase of 27% compared with 1938 consumption and an increase of 3% compared with the previous record year of 1937, states the current issue of the *Rayon Organon*, published by the Textile Economics Bureau, Inc.

Excepting silk, all fibers showed an appreciable gain in poundage consumption last year. Rayon consumption (yarn plus staple fiber) aggregated 462,800,000 pounds last year, an increase of 41% compared with the previous record year of 1938 when consumption aggregated 327,100,000 pounds.

Consumption of cotton in 1939 totaled 3,626,700,000 pounds, an increase of 25% compared with 1938, and only 1% less than the all-time high of 1937 when 3,657,100,000 pounds were consumed. Last year's consumption of wool (scoured basis) totaled 396,500,000 pounds, or 39% greater than the 1938 total and only 6% less than the record high year of 1923, when consumption totaled 422,400,000 pounds.

Silk consumption continued to follow a downward trend in 1939, the total of 47,300,000 being the smallest since 1923. The 1939 estimated consumption of linen amounted to 25,000,000 pounds, a gain of 21% compared with 1938, but substantially below the 1936 total.

The following table shows 1939 consumption of the five main textile fibers as compared with recent years:

(In Thousands of Pounds)

	1939	1938	1937
Cotton	3,626,700	2,903,900	3,657,100
Rayon	462,800	327,100	307,900
Wool	396,500	284,500	380,800
Silk	47,300	51,700	53,600
Linen	25,000	20,700	35,500
Total	4,558,300	3,587,900	4,434,900

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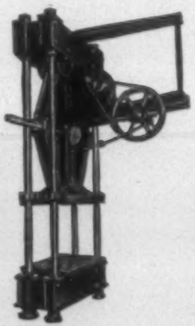

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Scheuer & Co. Issues Textile Chart

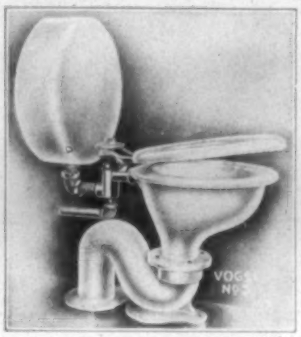
Scheuer & Co., 72 Leonard street, New York City, textile brokers and consultants, are distributing the 1939 edition of their Comparative Textile Chart. This publication has been issued for many years and the series forms a concise historical record of the industry's performance.

The cotton section includes, among other material, a price history of 64x60 38½" 5.35 (the standard cotton print cloth of the market) covering the years 1930 to 1939, inclusive. It records the highest and lowest monthly mill margins, as well as the price ranges of cloth and cotton during these years. Monthly mill margins of two standard combed cotton constructions are included.

A feature is the section which shows the total annual production and consumption for the country of cotton cloth, rayon yarn, and rayon staple fibre. In each of the years covered (1936 to 1939 inclusive) the per capita consumption of all these items is given. Here is portrayed the rapid growth of staple fibre as well as the relative stability of the cotton fabric movement.

Prices, raw material costs, and mill margins of two staple rayon constructions are presented in a graphic form which facilitates interpretation. These mill margins, which represent what mills receive for the services of manufacturing, financing, and selling, form an important barometer of the industry's well-being.

The chart has established itself as a ready reference record for buyers and sellers alike. Throughout the industry, in schools of business and economics, and in libraries, it has found great usefulness. It is attractively printed, and is available both in mounted and unmounted form.



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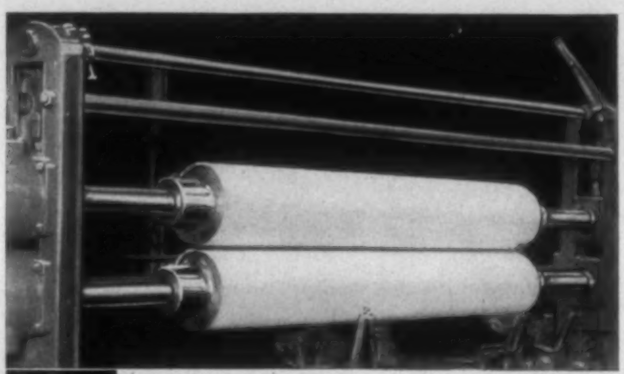

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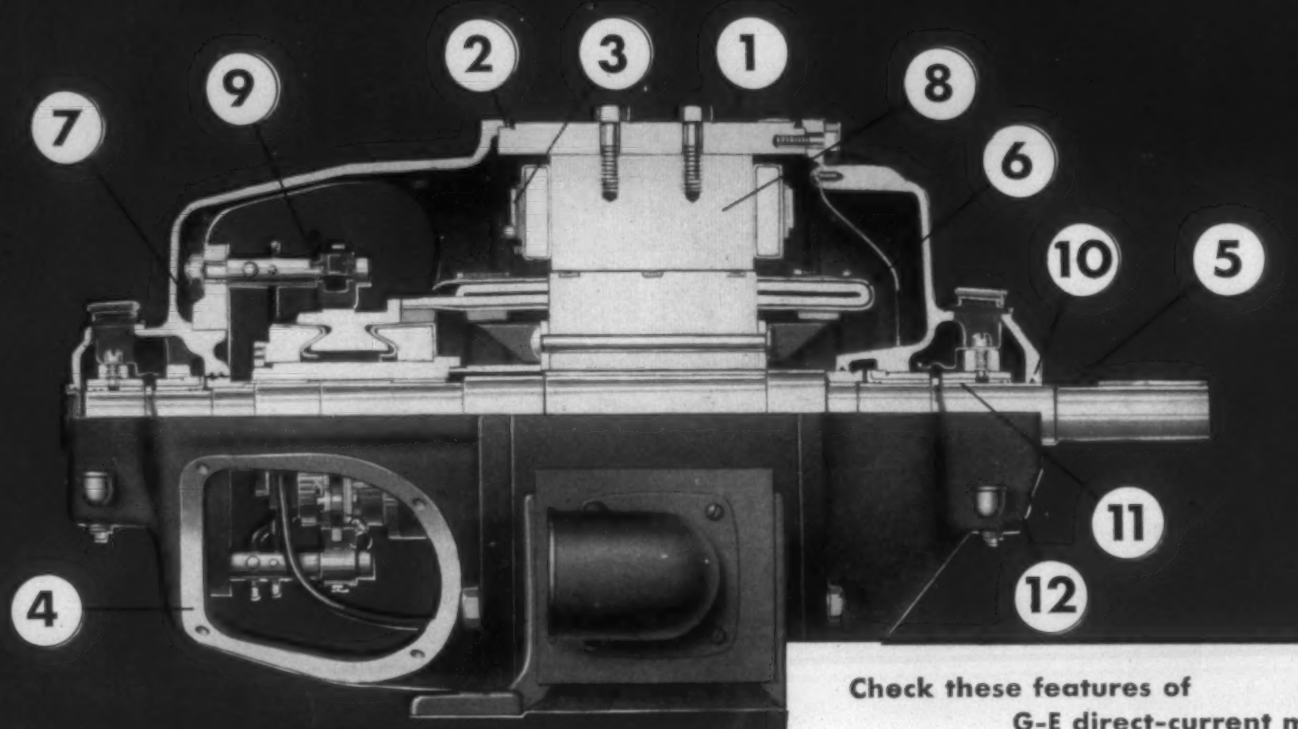
INSIDE FACTS

Why G-E direct-current motors give long, low-cost service in textile mills



Cutaway view of G-E industrial-type d-c motor

SEE for yourself that there's no mystery behind the excellent performance of G-E industrial-type d-c motors in textile mills.

No mystery—just facts—facts about their design and construction that show why they give years of dependable, low-cost service wherever they're installed. Take a minute and check these facts, remembering that because of space limitations they form only a partial list.

Long bearing life, excellent commutation, a highly protective insulation with remarkable bonding qualities, easily accessible brush rigging, a convenient lubrication system—you find all these advantages in G-E d-c motors.

Remember, too, that these motors are available in a wide variety of standard ratings, speeds, and enclosures to meet all operating requirements. For complete information, just get in touch with the G-E representative nearest you. General Electric, Schenectady, N. Y.

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1. Rolled-steel frame, bored throughout its length, assures uniform air gap and maximum strength.

2. Substantial, 360-degree rabbet fit maintains accurate concentricity and alignment of end shields.

3. Series windings outside shunt, resulting in a better-insulated coil. G-E bonding varnish cements the coils into a solid mass. High resistance to foreign matter prolongs the life of the winding.

4. End-shield openings can be covered with flat plates or screen covers, for which tapped holes are provided.

5. Shaft removable.

6. Form-wound, pretreated coils.

7. Brush yoke clamped in position and easily adjustable.

8. High-grade silicon-steel laminations.

9. Brush holders easily adjusted to maintain proper setting.

10. Grease-filled V-grooves exclude dust and dirt.

11. Steel-shell, babbitted bearing linings.

12. Large oil reservoir.

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